BIODIVERSITY OF ST. TERESA'S COLLEGE CAMPUS, ERNAKULAM, KERALA: A FLORISTIC APPROACH

Dissertation submitted in partial fulfillment of the requirements for the award of degree of

BACHELOR OF SCIENCE IN BOTANY

by

Swalihath Binth Sunu (Reg. No.: AB20BOT021)

DEPARTMENT OF BOTANY

ST. TERESA'S COLLEGE (AUTONOMOUS)

ERNAKULAM

MARCH 2023

CERTIFICATE

This is to certify that the investigatory project entitled **"Biodiversity of St. Teresa's College Campus, Ernakulam, Kerala: A floristic approach"** submitted in partial fulfilment of the requirements for the degree of Bachelor of Science in botany is an authentic work carried out by **Swalihath Binth Sunu** (Reg. No: AB20BOT021) under the guidance and supervision of **Dr. Aghil Soorya A,** Assistant Professor, Department of Botany.

20/04/2023

Dr. Aghil Soorya A
Supervising teacher
Department of Botany
St. Teresa's College (Autonomous)
Ernakulam

Liza

Dr. Liza Jacob
Head of the Department of Botany
St. Teresa's College (Autonomous)
Ernakulam

St. Teresa's College (Autonomous) Ernakulam DEPARTMENT OF BOTANY SHOWS

Examiners

1)

2)

DECLARATION

I, hereby declare that work which being presented in the dissertation, entitled **"Biodiversity of St. Teresa's College Campus, Ernakulam, Kerala: A floristic approach"** in fulfillment of requirements for the award of the degree of Bachelor of Science in Botany and submitted to St. Teresa's College (Autonomous), Ernakulam is an authentic record of my own work carried out during B.Sc. period under the supervision of Dr. Aghil Soorya A.

The matter embodied in this dissertation has not been submitted by me for the award of any other degree of this or any other University/ Institute.

Place: Ernakulam
Date: 24/04/2023

Signature of the candidate
(Swalihath Binth Sunu)

ACKNOWLEDGMENT

I extend my sincere gratitude **Dr. Aghil Soorya A**, Assistant professor, Department of Botany, St. Teresa's College, Ernakulam for her tireless supervision, and selfless assistance and encouragement rendered throughout the course of this project work. Without hermhelp and moral support, this work would not have been a success.

I express my heartfelt thanks to **Dr. Liza Jacob**, Head, Department of Botany, St. Teresa's College, Ernakulam for her valuable guidance and support for the completion of this dissertation.

I consider it as a privilege to express my sincere thanks to all the teachers Dr. Elsam Joseph, Smt. Nishitha I. K., Dr. Arya P Mohan, Smt. Merin Alice George and Dr. Chandini V.K. Department of Botany, St. Teresa’s College for their timely suggestions and help.

I extend my sincere gratitude to all the non-teaching staff for their kind help and support during the course of this work.

I acknowledge **Dr. Alphonsa Vijaya Joseph**, Principle, St. Teresa’s College, Ernakulam, for the opportunity provided to carry my project in the institute.

I am grateful to my beloved parents and friends for their encouragement, support and blessings without which this work would not have completed successfully.

I express my reverence to God almighty who has given me strength and courage during this work.

Swalihath Binth Sunu

CONTENT

CHAPTER 1

INTRODUCTION

1. INTRODUCTION

Plants play an important role in the life of every organism in the world. Since the beginning, plants have furnished us with two of life's essentials, food and oxygen. As we evolved, they provided additional necessities such as shelter, medicine, and tools. Today, their value continues to increase and more benefits of plants are being discovered as their role expands to satisfy the needs created by our modern lifestyles. Plants are an important part of every community. Our streets, parks, playgrounds and backyards are lined with trees, shrubs and bushes that create a peaceful, aesthetically pleasing environment. Trees increase our quality of life by bringing natural elements and wildlife habitats into urban settings. We gather under the cool shade they provide during outdoor activities with family and friends. Many neighborhoods are also the home of very old trees that serve as historic landmarks and a great source of town pride.

Plants control climate by moderating the effects of the sun, rain and wind. Leaves absorb and filter the sun's radiant energy, keeping things cool in summer. Trees also preserve warmth by providing a screen from harsh wind. In addition to influencing wind speed and direction, they shield us from the downfall of rain, sleet and hail. Plants also lower the air temperature and reduce the heat intensity of the greenhouse effect by maintaining low levels of carbon dioxide.

Both above and below ground, trees are essential to the eco-systems in which they reside. Far reaching roots hold soil in place and fight erosion. Fallen leaves make excellent compost that enriches soil.

"*Life begins the day you start a garden*" says a Chinese proverb. For mankind, plants provide them that immense pleasure and peaceful state of mind they could never get from elsewhere. Plants fill their surroundings with positive energy and prosperity. Moreover, plants provide valuable economically important products like fruits, vegetables, oil, pulses**,** fibers, etc. Many disease-curing medicines are too obtained from plants.

Today plants especially trees are highly exploited to make up for the greed of humankind despite their prime role in sustaining life on Earth. Factories and several other human activities invade the natural ecosystems and destroy them gradually or all at once. Plants are at a high need to be conservated.

St. Teresa's College (Autonomous), located in Kerala, Ernakulam, Marine Drive, Park Ave -68201 is rich in different types of plant species. The aim is to identify all the plant species present in the campus and to make a detailed study of the identified plant species. There are more than four hundred different species of plants now in the campus. Among them, there are several plants, shrubs, herbs, and even grasses are included.

In this current study, we understood that the campus is rich in several plant species and giving more importance to the care and protection of that plant species. Even though the College is situated in a hurry-burry city the presence of huge old trees of the campus is giving us a good shade and pure oxygen. These plants are giving positivity to the campus. In many cases students are unaware of the botanical biodiversity that is Infront of their eyes. Field-based botanical inventures improves the skills in morphology, plant identification, understand the family, description, bio-documentation, etc. The project includes the Arts block, Science block, Central block of St. Teresa's College campus. This project increases the knowledge of several plants that are seen around us,and also helps the students to work with full dedication and co-operation.It also helps to understand why the plant conservation and related activities are so important in the present day by acquainted with the medicinal,economic and other uses of plants.St.Teresa's College is a place where environmental friendly activities and education combines to promote and enhance the eco-friendly activities in the campus.It is clear that St.Teresa's College is not only leading in academics, but also in the conservation of plant species.

Hence, the objectives of the current project are as follows:

- To survey the floristic richness of St. Teresa's College campus.
- To identify all the plant species in the college campus.
- To document the floristic biodiversity of the campus with photographs.
- To record the medicinal and economic importance of identified plants.

CHAPTER-2

REVIEW OF LITERATURE

2. REVIEW OF LITERATURE

As biodiversity is the variety of life on the earth or in a particular habitat (Kamlesh and Dinesh, 2020). Biodiversity is the variety of different forms of life on earth, including the different plants, animals, micro-organisms, the genes they contain and the ecosystem they form. It refers to genetic variation, ecosystem variation, species variation (number of species) within an area, biome or planet. It has been empirically shown that native species richness is linked to the health of ecosystems, as is the quality of life for humans (Agarwal, 2015). Biodiversity is greater in equatorial regions owing to favorable conditions. The geographical regions where significant varieties of biodiversity are seen is known as biodiversity hotspot. These hotspots are dense with endemic species. There are 36 biodiversity hotspots in the whole world. Three biodiversity hotspots such as the Himalayas, the western Ghats and the indo-Burma region are seen in India. India is one of the seventeen mega diversity countries in the world. We can see high levels of species richness here. Many endemic species are also seen in India. 7.6% of all mammalian, 12.6% of all avian, 6.2% of all reptilian, 4.4% of all amphibian, 11.7% of all fish and 6.0% of all flowering plant species are present in India. There are 163 species that are facing a threat of extinction. Endemic species can be threatened with extinction (Mooney, 2001). The adverse effects of human impacts on biodiversity are increasing dramatically and threatening the foundation of sustainable development. The major problems associated with the biodiversity loss are the habitat fragmentation, due to human activities followed by the climate change, loading and biotic exchanges (Sala *et al*., 2000). Human beings are exploiting natural resources beyond a limit. Due to this there is high levels of variations in the climate, increased levels of pollution etc. hence biodiversity should be conserved. India is one of the 12 mega biodiversity countries of the world, which represents 11% of world‟s flora in about 2.4% of global land mass. Approximately 28% of the total Indian flora and 33% of angiosperms occurring in India are endemic. Higher human population density in biodiversity hotspots in India puts undue pressure on these sensitive eco-regions (Vishwas *et al*., 2014). India is home to thousands of community-protected forests, called sacred groves. Sacred forests or groves are sites that have cultural or spiritual significance to the people who live around them. These areas may also be key reservoirs of biodiversity (Alison, 2011). In India there are 13 biosphere reserves, 87

national parks and more than 566 wildlife sanctuaries for conserving biodiversity. Over 47,000 species of plants and 81,000 species of animals have been recorded by the Botanical Survey of India and the Zoological (Sreeja and Unni, 2016). Kerala is a state situated at the south most part of India. This small state consists of evergreen forests, mountains, beaches, rivers, lakes etc. there are 44 rivers in Kerala. Kerala is rich in flora and fauna, but endemic species are less in number. Some parts of the great western Ghats is situated in Kerala. The Kerala forests have bewildering diversity of floristic composition. More than one thousand arborescent species make Kerala‟s forests rich and varied. There are also herbaceous cardamom, bamboo, the giant grass-, calamus rotang-, the longest of the phanerogams-, *Piper nigrum*- the black gold-, and sweet scented *vetiveria*. In terms of animal diversity also Kerala holds a leading position. Elephant, tiger, wild boars, thars, spotted deer, leopard are among the numerous different wild animals seen. Some endemic forms constituting endangered species, also exist. Lion-tailed monkeys, Nilgiri langur, Malabar civet and Giant squirrels are a few examples (Sreedharan, 2004). An inventory of the flora of the Ernakulam district was prepared by Sunil et al. (2015) in which, a total of 1,706 species belonging to 158 families and 866 genera have been documented during the study period 2012–2015.

Plants provided in a campus not only adds shade and shelter for other organisms, but also encourages the students of the campus with positivity, and stress relief. Numerous outdoor studies were conducted to analyze the quality of mind in various human population, and it concluded that the interaction with plants provides numerous direct and indirect benefits. Various neurological studies emphasized on plant therapies for people with disoriented minds (Rise, 2012). Hence the campus that facilitates such an interaction with plants for the students not only aims the educational quality but also their mental quality.

Ernakulam, located in the central kerala, India sharing its territory with the Arabian sea. Ernakulam is part of Kochi referred to in the history of Kerala as the Queen of Arabian Sea. It is rich with its both terrestrial and marine ecosystem which facilitates a blended floristic biodiversity. St. Teresa’s College, resides at the banks of marine ecosystem shares its floristic biodiversity with terrestrial lands. The floristic biodiversity study was conducted in the campus of St. Teresa’s College, Ernakulam. Earlier in 2019, a similar survey was executed by Dr. Lizzy Mathew and Haritha which included a photographic

documentation of the campus plants. Later this project is being carried out as an updated documentation of the campus flora along with its medicinal and economic importance.

CHAPTER 3
MATERIALS AND METHODS

3. MATERIALS AND METHODS

St. Teresa's College is situated at the banks of Arabian Sea. The campus is divided into three buildings namely, Arts Block Building, Central Block Building and Science Block Building. The current floristic study is carried out in all the three campus and combined as a single documentation.

3.1. Floristic survey and documentation

The plants of the campus were surveyed during the month of November, 2022, photographed with geo-tags using a GPS Map Camera, and identified with the Illustations of the Flora of Tamilnadu Carnatic (Mathew, 1982), Flora of Kerala (Daniel, 2005) and Flowering Plants (Sasidharan, 2004). The documentation of the survey was done with the photographs, botanical names and family of the identified plants. In addition, the plants were documented with their medicinal, economic and ornamental aspects.

CHAPTER 4
RESULTS

1. RESULT

The floristic survey of the St. Teresas's College Campus was carried out which resulted in a total of 214 taxa belonging to 153 genera spreading over 82 families. There were 11 Pteridiophytes, 6 Gymnosperms and 197 Angiosperms. Of the 197 Angiosperms, 75 were monocots and 119 dicots. The predominant families observed were Araceae, Asperagaceae, Leguminosae, Orchidaceae and Apocynaceae. The statistical analysis of the flora have been depicted in Table 1.

Table 1. Statistical analysis of the flora

Class	**Families**		**Genera**		**Species**	
	No.	Percentage (%)	No.	Percentage (%)	No.	Percentage (%)
Pteridophytes	8	9.75	9	5.88	11	5.14
Gymnosperms	4	4.87	6	3.92	6	2.80
Dicotyledons	52	63.42	90	58.82	122	52.34
Monocotyledons	18	21.95	48	31.37	75	35.04

The list of plants surveyed and identified are depicted in Table 2 and 3 along with their economic and medicinal benefits.

Table 3. List of plants of St. Teresa's College Campus

S. No.	Scientific Name	Family	Economic Importance	Medicinal Property
1.	*Abelmoschus esculentus* (*L.)* Moench	Malvaceae	Fruits are cooked in a various way. The roots and stems are used for clearing the cane juice from which brown sugar is prepared. The ripe seeds are used as substitute for coffee in Turkey. It is much useful against genito-urinary disorders and chronic dysentery. Galactomanan in the seeds is used for gum preparation which has several medicinal values. (Rk Maiti, Vp Singh-2021)	Cure kidney stones, Constipation, diabetes, jaundice, gastric ulcers. (Rk Maiti, Vp Singh-2021)
2.	*Acorus gramineus Sol.aiton*	Acoraceae	Frequently used around the edges of ponds and water gardens,[2] as well as submerged in freshwater aquaria. It can be propagated by dividing the fleshy underwater rhizome and planting the base in shallow water (Jee Yeon Lee *et al.,* 2004)	The root Is antifungal, antibacterial, antiperiodic, aromatic, cardiac, antirheumatic, febrifuge, sedative, antispasmodic, stomachic, tonic, stimulant, carminative, diaphoretic, emmenaggue, and vermifuge. It is also powdered and applied to bleeding gums. It is used internally in the treatment of digestive problems – particularly gastralgia

				and diarrhoea, cough, bronchial asthma, neurasthenia, depression, epilepsy etc . (Jee Yeon Lee *et al.,* 2004) Externally, it is used to treat body parasites, dermatosis and haemorrhoids. The root can be harvested at any time of the year, except when the plant is in flower. The whole plant is anodyne, antiperiodic, antispasmodic, digestive, diaphoretic, diuretic, expectorant, sedative, stimulant, stomachic, sudorific, tonic, vermifuge. (Jee Yeon Lee *et al.,* 004)
3.	*Adenium obesum* (*Forssk.) Roem. & Schult.*	Apocynaceae	Sap is used as arrow poison for hunting large game throughout much of Africa and as a fish toxin (Deepak paul *et al.*,-2015)	Research has shown the presence of some 30 cardiotoxic glycosides, which act in a similar way as digitalis from foxgloves (Digitalis spp.) The ethanol extract of the roots has been shown to slow down the growth of Bacillus subtilis, but has not shown activity against Pseudomonas aeruginosa, Staphylococcus aureus or Candida albida. Extracts from the root have shown a cytotoxic effect against several carcinoma cell lines. The aqueous stem bark extract is a potential

				acaricide as it shows high toxicity on all stages of development of the ticks Amblyomma spp. And Boophilus spp. A decoction from the roots, alone or in combination with other plants, is used externally to treat venereal diseases; a root or bark extract is used as a bath or lotion to treat skin diseases and to kill lice. A root decoction as nose drops is prescribed for rhinitis. Latex is applied to decaying teeth and septic wounds. Latex is rubbed on the head against lice. Powdered stems are applied to kill skin parasites of camels and cattle. The bark is chewed as an abortifacient (Deepak paul *et al.*, 2015)
4.	*Adiantum capillus-veneris L.*	Pteridaceae	The fronds are used as a garnish on sweet dishes. The dried fronds are used to make a tea. A syrup is made from the plant - it makes a refreshing summer drink. The fern is simmered in water for several hours and the liquid made into a thick syrup with sugar and orange water.	Many pharmacological effects including anti-diabetic, anti-obesity, anticonvulsant, hypocholesterolemic, goitrogenic, analgesic, anti-thyroidal, antibacterial, antifungal, wound healing, anti-hair loss, anti-asthmatic, anti-inflammatory, antidiarrheal and antispasmodic, antioxidant as well as diuretic, anti-urolithiasis, and detoxifying

			It is then mixed with fruit juices to make a refreshing drink. (Ansari *et al.*, 2012)	properties. (Ansari *et al.*, 2012)
5.	*Aglaonema commutatum* Schott.	Araceae	Chinese Evergreen helps to improve the air quality of your indoor spaces with the ability to filter indoor air pollutants and toxins. Air purification (Ji Li *et al.*, 2023)	In Malaysia, the roots are used as a tonic for children and as anthelmintic, and a decoction of the roots is drunk to treat fever and dropsy. In the Moluccas, heated leaves are used to reduce swellings, but this sometimes results in sores. It is used in Laos, Cambodia and Vietnam externally as a poultice for carbuncles, and a decoction of the stem is used as a laxative. (Ji Li *et al.*, 2023)
6.	*Albizia saman* (*Jacq.) Merr.*	Leguminosae	Uses of the wood include fencing, construction timbers, plywood and the manufacture of crates, wheels and boats. Pasture and fodder (Naveen *et al.*, 2008)	Treatment of diarrhea. stomach pain, and sore throat. It is also used as a laxative. (Naveen *et al.*, 2008)
7.	*Alcantarea imperialis* (*Carrière) Harms*	Bromeliaceae	It is of remarkable ornamental value, and of great landscape effect, due to its very informal foliage and the showy colour of the long summer inflorescence which lasts for some months. This species plays an important ecological role as it stores rainwater in the pockets	

			created by its leaves, offering a home to frogs, insects, and even other small aquatic plants (Lexer *et al.*, 2007)	
8.	*Allamanda cathartica. L*	Apocynaceae	It is used as a garden ornamental plant. (Prabhadevi *et al.,* 2012)	A. cathartica has been used to treat liver tumors, jaundice, splenomegaly, and malaria. In analyses, some species have shown some activity against carcinoma cells, pathogenic fungi, and HIV. (Prabhadevi *et al.,* 2012)
9.	*Allium schoenoprasum. L*	Amaryllidaceae	Chives are best used fresh and lose flavor and attractive color after being dried (Gargi *et al.,*-2018)	It has antimicrobial and antifungal properties and is used to relieve pain from sunburn and sore throat. Traditional medicinal uses of these chives include treating intestinal parasites, boosting immune systems, promote good digestion and even cure anemia. (Gargi *et al.,*-2018)
10.	*Alocasia clypeolata A.Hay*	Aracaceae		Anti-cancer, antidiabetic and antihyperglycaemic antioxidant, antidiarrhoea, antimicrobial and antifungal, antiparasitic (antiprotozoal and anthelminthic), antinociceptive and anti-inflammatory, brine shrimp lethality, hepatoprotective. anti-bemagglutinin, anti-constipation and diuretic, and radioprotective activities as well as acute

				toxicity studies (Dayar Arbain *et al.*, 2022)
11.	*Alocasia sanderiana W.Bull*	Aracaceae	Cultivated as an ornamental plant, for its large dramatic foliage. In nontropical climates, it is used as a house plant. It is also used in making nanomaterials to fight. bacteria in vitro. (Dayar Arbain *et al.*, 2022)	
12.	*Aloe vera* (*L.) Burm.f.*	Asphodelaceae	The cosmetic, pharmaceutical, and food industries use aloe vera extensively, and the plant has an estimated annual market value of $13 billion globally. (Ritu singh *et al.*,2013)	Traditionally, the clear gel from the Aloe plant is rubbed on the skin as an ointment to treat wounds and burns. The green part of the leaf can be made into a juice or dried and taken orally as a laxative. (Ritu singh *et al.*, 2013)
13.	*Alpinia zerumbet* (*Pers.) B.L.Burtt & R.M.Sm.*	Zingiberaceae	Alpinia species are used as human food components with pharmaceutical effects in many countries. (Eric *et al.*, 2017)	Traditional medicine to cure cardiovascular disorders, hypertension, inflammation, cold, and as antispasmodic agent. Also, the essential oil possess anti-oxidant, relaxant, anti-spasmodic and anti-cancer effects, The extract possessed anti-nociceptive, anti-pyretic, and anti- inflammatory activites mediated by free radicals scavenging and inhibition of prostaglandins and leukotrienes synthesis. In Asia is used to relieve fevers and malaria, as well as to act as general health

				improvements (Eric *et al.*,2017)
14.	*Alternanthera bettzickiana* (*Regel) G.Nicholson*	Amaranthaceae	Prevent soil erosion Used as food in salads (Thomas *et al.*,-2014)	Cure anemic conditions in children (Thomas *et al.*, 2014)
15.	*Amaranthus cruentus L.*	Amaranthaceae	Leaves are edible when cooked. (Janet -2013)	The high protein content and amino acid composition give amaranth medicinal benefits such as cholesterol lowering, antioxidant, anticancer, anti-allergic, and antihypertensive activity. (Janet-2013)
16.	*Amaranthus viridis L.*	Amaranthaceae	Leaves are edible when cooked. (Janet-2013)	Amaranthus viridis is used as traditional medicine in the treatment of fever, pain, asthma, diabetes, dysentery, urinary disorders, liver disorders, eye disorders and venereal diseases. The plant also possesses anti-microbial properties. (Janet-2013)
17.	*Annona squamosa L.[2]*	Annonaceae	Seed oil, Essential oil (Raj shekar saha-2011)	Antibacterial property Antioxidant (Rah Shekhar Saha-2011)
18.	*Anthurium andraeanum Linden ex André*	Araceae	They are one of the best houseplants that purify indoor air. Their large, dark leaves suck up ammonia, formaldehyde, toluene and xylene, so they're a thoughtful present for a workplace (especially around copiers, printers or	Reduce allergies, stress Improve mental health Boost productivity &memory (Jae *et al.*,-2018)

			adhesives). (Jaime *et al.,* 2018)	
19.	*Anthurium crystallinum Linden & André*	Araceae		Anthurium crystallinum plant is used as a food product and used for medicinal purposes by the Americans for centuries. They chew the bright red anthurium flowers to get relief from nausea or heartburn. The leaves are boiled to cure a cold. (Jaime *et al.,* 2018)
20.	*Anthurium hookeri. Kunth*	Araceae	*Anthurium hookeri* plants clean the air around them. They suck in the pollutants and release fresh oxygen in return. (Jaime *et al.,*-2018)	
21.	*Arachis hypogaea L.*	Leguminosae	Prepare edible oil Manufacturing of pharmaceutical, soap, creams, oaints, insect control, shells are used as fertilizers (Ondulla -2022)	Good source of vitamin, protein, minerals, Antiinflammatory, aphrodisiac, decoagulant. (Ondulla-2022)
22.	*Arachnis annamensis L.*	*Orchidaceae*	The inflorescence is highly attractive and is of great commercial value. (Ondulla-2022)	A great source of vitamin A and antioxidants, Orchids will replenish and rejuvenate your skin. Treating skin problems like wrinkles, blemishes and more. The orchid extract in your face mist or face pack for getting that glow. Orchids have compounds that relieve ulcers and relax the stomach. Orchids are a rich source of Vitamin C and

				E. Consuming them on a daily basis can keep all eye diseases at bay. (Ondulla-2022)
23.	*Areca triandra Roxb. Ex Buch.-Ham.*	Arecacea		Treatment of dyspepsia, flatulence, vomiting, gastralgia, colic, diarrhoea and malaria. (He Zhang *et al.*,-2021) In China the plant is used to treat stomach disorders, vomiting and dyspepsia. Its rhizome is traditionally applied as a stomachic, carminative, astringent, tonic and sedative. The seed is used to clear cold, invigorate the spleen and warm the stomach. (He Zhang *et al.*,-2021)
24.	*Artabotrys siamensis R. Br.*	Annonaceae	They famous for their gorgeous flowers which are used to make leis (floral garlands). The plant is used for ornamental purpose. (Kok Wan Tan-2015)	
25.	*Artocarpus heterophyllus Lam.[1][2]*	Moraceae	People eat the fruit and seeds of jackfruit tree as food or as medicine. The wood of the jackfruit tree is used to make furniture or musical instruments (Om Praksash *et al.*,-2009)	Jackfruit is taken by mouth as an aphrodisiac or for diabetes. Jackfruit paste is applied to the skin for poisonous bites. It is a rich source of several high-value compounds with potential beneficial physiological activities".

				It is well known for its antibacterial, antifungal, antidiabetic, anti-inflammatory, and antioxidant activities. (Om Prakash *et al.*,-2009)
26.	*Asparagus densiflorus* (*Kunth) Jessop*	Asparagaceae	Used as Ground covers in shade as well as in full sun or, in containers or large hanging baskets. (Edward F Gillman-1999)	Treating headaches, backaches, and stomach pains and also is used to assist in childbirth and for hematuria, hemorrhoids, malaria, leishmaniasis, bilharziasis, syphilis, and gonorrhea (Edward F Gillman-1999)
27.	*Athyrium filix-femina* (*L.) Roth*	Athyriaceae		To treat cough, rheumatic pain, scorpion stings, sores, burns and scalds, intestinal fever, pain, specifically breast pain during child birth, to increase milk flow, as an antiparasitic, anthelmintic, and carminative (Johan-1979)
28.	*Azadirachta indica A.Juss., 1830 [2]*	Meliaceae		Treatment of inflammation, infections, fever, skin diseases and dental disorders. Treat dental and gastrointestinal disorders, malaria fevers, skin diseases, and as insects repellent, while the Balinese used neem leaves as a diuretic and for diabetes, headache, heartburn, and stimulating the appetite. Treats Acne, Nourishes Skin, fungal Infections, in Detoxification, increases

				Immunity, Insect & Mosquito Repellent, Prevents Gastrointestinal Diseases, Treats Wounds, Reduces Dandruff, Reduces Joint Pain, Exfoliates skin. (Venugopalan *et al.*,-2013)
29.	*Baliospermum montanum*	Euphorbiaceae		The leaves and roots are pungent, cathartic, thermogenic, purgative, anthelmintic, and diuretic. The roots are used in dropsy, anascara, and jaundice. Decoction of leaves is used for treating asthma. Seeds are purgative, used externally as stimulant, and are rubifacient. The oil from the seeds is hydrogogue, cathartic, and used for external application in rheumatism. (Raju *et al.*,-2008)
30.	*Bambusa vulgaris Schrad. Ex J.C.Wendl.[2]*	Poaceae	Manufacturing a number of products, like building materials, carpentry, farming, forestry, hunting and fishing apparatus, fuel and lighting, household, domestic and personal items, pulp and paper. (Razak *et al.*,-2010)	Bamboo extract is used to treat various inflammatory conditions. Its sprouts are acrid, bitter and laxative and are helpful in inflammations, ulcers and wounds. The bamboo resin (tabasheer, banshalochan) has astringent, acrid, sweet, expectorant, constipating, aphrodisiac, cooling, cardiotonic, haemostatic, and

				diuretic properties. It is used to treat infantile epilepsy. Bamboo is used as an abortifacient for kidney troubles. (Razak *et al.*,-2010)
31.	*Bauhinia blakeana Dunn*	Leguminosae		tonic and in treatment of ulcers. It is also useful in skin diseases. The roots are used as antidote to snake poison (Narinder *et al.*,-2019)
32.	*Bauhinia monandra kurz*	Leguminosae	The trees are sometimes used to make 'living fences' The pods and seeds are sources of black and blue dyes. The fibrous bark can be used for making cordage. The heartwood is brown; the sapwood whitish. The wood is hard. It is only used for fuel. (Narinder *et al.*,-2019)	The pods are pounded and boiled in water to provide a laxative drink. They are used as an astringent for treating diarrhoea and dysentery, and are also used as a remedy for fevers. A decoction of the root and bark is used in the treatment of leprosy and small pox. An anti-inflammatory ointment is made from the bark. The leaves have been used in the treatment of diabetes. Leaf extracts are used in the treatment of eye ailments (Narinder *et al.*,-2019)
33.	*Begonia coccinea Hook.*	Begoniaceae	Ornamental (Sangeetha Rajbhandari-2013)	Flower infusions used to promote blood circulation and elimination of toxins from the body.

				Poultice of flowers used for burns and toxic sores. Juice of the plants is drunk to use relieve headaches. Poultice of crushed leaves for sore and irritated nipples. Roots of the juice used for conjunctivitis. Also used for peptic ulcer. (Sangeetha Raj Bhandari-2013)
34.	*Begonia hirtella Link, Enum. Hort. Berol. Alt. 2: 396. 1822.*	Begoniacea e	Used for the planting of flower beds, as well as a potted plant Ornamental, decorative (Sangeetha Raj Bhandari-2013)	
35.	*Begonia mazae Ziesenh.*	Begoniacea e	They are distributed worldwide in tropical or warm regions. They are cultivated ornamentals. (Sangeetha Rajbandari-2013)	
36.	*Begonia rex Putz*	Begoniacea e	They can be used to add colour to flower beds and borders in shady locations. They grow well in containers and can be used to decorate shady spots on a balcony or patio. Hybrids are also often grown indoors. (Sangeetha Rajbandari-2013)	

37.	*Begonia solananthera A.DC.*	Begoniacea e		Relieves Bronchitis, Cures Candidiasis, Heals Digestive Disorders (Sangeetha Rajbandhari-2013)
38.	*Biophytum sensitivum* (*L.) DC.*	Oxalidaceae		It is an indigenous medicine, used against "Madhumeha" (Diabetes mellitus) apart from being used as tonic, stimulant, and in the treatment of stomach ache, asthma, insomnia, convulsions, cramps, chest-complaints, inflammations, tumours and chronic skin diseases. (Shaktivel *et al.*,-2012)
39.	*Bletilla striata* (*Thunb.) Rchb.f.* (*1878)*	Orchidaceae		Treatment of tuberculosis, malignant ulcers, hemorrhoids, anthrax, eye diseases, and silicosis. (Xirui *et al.*,-2017)
40.	*Borassus flabellifer L.*	Aracaceae	Used for thatching, mats, baskets, fans, hats, umbrellas, and as writing material. (A Jerry-2018)	The fresh sap is a good source of vitamin B-complex. The different parts of the plant are being used for medicinal properties like antihelminthic and diuretic. The fruit pulp of B. flabellifer has been used in traditional dishes and the sap, has been used as a sweetener for diabetic patient (A Jerry-2018)

41.	*Bougainvillea spectabilis Willd.[1]*	Nyctaginaceae	Used for decoration purposes (Anisa *et al.*,-2017)	The aqueous extract and decoction of this plant have been used as fertility control among the tribal people in many countries. It has been shown to possess anticancer, antioxidant, antiulcer anti-inflammatory, antihepatotoxic, antihyperlipidemic, antidiabetic and antimicrobial properties. (Anisa *et al.*,-2017)
42.	*Breynia disticha J.R.Forst. & G.Forst.*	Phyllanthaceae	Decorative purposes (Omaima *et al.*,-2018)	Used to cure body pain, skin inflammation, hyperglycaemia, diarrhoea and diuretic. The fruits have been used for dysentery and twigs used for toothache (Omaima *et al.*,-2018)
43.	*Caesalpinia ferrea C.Mart..*	Leguminosae		treat disorders affecting several systems, including the circulatory, immune, cardiovascular, digestive, respiratory, genitourinary, musculoskeletal, and conjunctive systems (Nair Silva *et al.*,-2020)
44.	*Calathea louisae* (*Gagnep.) Borchs. & S.Suárez*	Marantaceae	Calathea Louisae is an excellent plant for interior surfaces, conference rooms, offices, and lobbies. It is a type of plant that prefers indirect lighting, which means makes it perfect for indoor usage and office buildings. (ACR	

			Pinto *et al.*,-2007)	
45.	*Calla palustris L.*	Araceae	Powder is rich in starch and can be used as a flour for making bread etc, especially in conjunction with cereal flours (Peura-1986)	Antirheumatic. Used in the treatment of colds and flu. A tea made from the dried root has been used in the treatment of flu, shortness of breath, The aerial stems have been used in the treatment of sore legs. (Peura-1986)
46.	*Callisia fragrans* (*Lindl.) Woodson*	Commelinaceae	Decorative purposes (Malakyan *et al.*,-2015)	Its leaves are used for treatment of various skin diseases, burns and join disorders. The leaves contain biologically active flavonoids, neutral glycol-and phospholipids and their fatty-acid compositions (Malakyan *et al.*,-2015)
47.	*Callisia repens* (*Jacq., 1762)*	Commelinaceae	*C. repens* is an economically important species in the nursery and landscape trade. Its is widely commercialized as an ornamental and also it is used as ground cover in gardens and yards. Feeding plant for pets - Callisia repens - Vital food for rabbits, ornamental birds, reptiles, hamsters and guinea pigs. (Malakyan *et al.*,-2015)	Callisia is a natural antibiotic, antibacterial, and antioxidant. In Russia, Callisia leaves are infused in vodka and used as a tonic for skin problems, colds, heart problems, cancer, varicose veins, upset stomachs, and inflammation from arthritis. The leaves can also be infused in wine or dried for teas. (Malakyan *et al.*,-2015)
48.	*Callitris*	Cupressacea	Callitris is also an economically important	

	macleayana (*F.Muell.) F.Muell.*	e	source of softwood timber. It is exceptionally resistant to decay and termite attack and so is widely used in ground-contact applications such as fenceposts, timber posts, telephone poles and flooring. It is suitable for use in furniture. (Malakyan *et al.*,-2015)	
49.	*Canna indica L.*	Cannaceae	Its commercial importance is limited to starch production in a few regions and production as a staple food in parts of Peru, Ecuador and South-east Asia. The leaves and stems are used as a vegetable, either raw or steamed. The roots can be boiled and eaten like potatoes. The leaves are used as wrapping for other foods. (Ali Ismail alSnafi-2015)	The roots are used in the treatment of fever. Rhizomes are used in the treatment for skin diseases. Decoctions are used to treat fevers. Infusions are used to treat headaches. Emollients are applied to wounds. The plant contains chemicals which act against bacteria causing acne. It is used to treat coughs and colds. menstrual problems, dysmenorrhea, menopause, and infertility. Seeds are used in treating headaches. (Ali Ismail alsnafi-2015)
50.	*Capsicum annum L.*	Solanaceae		Used orally for upset stomach, toothache, poor circulation, fever, hyperlipidemia, and

				heart disease prevention To treat pain associated with osteoarthritis, shingles, rheumatoid arthritis, post-herpetic neuralgia, trigeminal neuralgia, diabetic neuropathy, fibromyalgia, and back pain, relief of muscle spasms and even as a gargle for laryngitis. (Victor garcia *et al.*,-2017)
51.	*Capsicum frutescens L.*	Solanaceae	Fruit - raw or cooked. Very hot and normally used as a flavouring. The fruit can be dried and ground into a powder for use as a flavouring. Seed-dried, ground and used as a pepper. Leaves - cooked as a potherb. (Victor garcia *et al.*,-2017)	used for nerve pain and other painful conditions. It is also used for many other purposes, including digestion problems, conditions of the heart and blood vessels, and many others. used as a tonic and is said to be unequalled in warding off disease. The fruit is also antihaemorrhoidal, antirheumatic, antiseptic, carminative, diaphoretic, digestive, sialagogue and stomachic. These pungent fruited peppers are important in the tropics as gastrointestinal detoxifiers and food preservatives. (Victor garcia *et al.*,-2017)
52.	*Carica papaya L.*	Caricaceae		Treatment for diabetes, inflammation, cancer, anaemia, immune system, diarrhoea, malaria, ulcers, liver, infections, relieve

				menstrual pain, improve ingestion, wound healing, and heart diseas (Igbua *et al.*,-2020)
53.	*Caryota mitis Lour.*	Arecaceae	Trunk contains a starch that can be used to make sago. The bipinnate leaves are also used as thatching for huts and weaving, while the fibres from the young leaves are used as tinder to start a fire (Widhana *et al.*,-2016).	
54.	*Cassia fistula L.*	Leguminose ae		Against fever, heart diseases, retained excretions and biliousness. Used in cardiac disorders biliousness, rheumatic condition, haemorrhages, wounds, ulcers and boils and various skin diseases. (Arati *et al.*,-2017)
55.	*Cedrus atlantica* (*Endl.) Manetti ex Carrière*	Pinaceae	Used in furniture, joinery, and veneer. The scent makes it especially popular for clothing storage furniture. Atlas cedar trees also produce cedarwood oil, an essential oil sold and used for medicinal purposes as well as in fragrances. (Mehmet *et al.*,-2021)	
56.	*Chlorophytum capense* (*L.)*	Asparagace ae		Anti-inflammatory properties (Saha *et al.*,-2011)

	Voss			
57.	*Chlorophytum comosum* (*Thunb.) Jacques[1]*	Asparagaceae	Studies have shown that spider plant is quite effective in cleaning indoor air by absorbing chemicals including formaldehyde, xylene, benzene, and carbon monoxide in homes or offices. (Saha *et al.*,-2011)	
58.	*Citrus limon* (*L.) Osbeck*	Rutaceae		Treat scurvy, sore throats, fevers, rheumatism, high blood pressure, and chest pain. The fruit, juice, and peel are used to make medicine. Lemon is used to treat scurvy, a condition caused by not having enough vitamin C. Lemon is also used for the common cold and flu, H1N1 (swine) flu, ringing in the ears (tinnitus), Meniere's disease, and kidney stones (Halina *et al.*,-2020)
59.	*Clematis terniflora* DC.	Ranunculaceae	In traditional Chinese medicine, it is used to treat tonsillitis, rheumatoid arthritis, and prostatitis. Anti-nociceptive and anti-inflammatory activities. (Gong *et al.*,-2015)	
60.	*Codiaeum variegatum*	Euphorbiac		Treat amoebic dysentery and stomach ache while a bath with root decoction or sap

	(*L.) A.Juss.*	eae		is applied in small quantities on skin related infections. The leaves are abortifacient, antiamoebic, antibacterial, anticancer, antifungal, antioxidant, emmenagogue, purgative and sedativ. A decoction of the crushed leaves is used in the treatment of diarrhoe (Emmanueal *et al.*,-2021)
61.	*Coelogyne pandurata Lindl.*	Orchidaceae	The simultaneously opening flowers are highly fragrant of honey but are short lived. (Ahamed Unus *et al.*,-2017)	
62.	*Coelus decurrenens Lour.*	Lamiaceae	Decorative purposes (Pullaiah-2022)	treat heart disorders such as high blood pressure and chest pain (angina), as well as respiratory disorders such as asthma. Forskolin is a chemical found in the roots of the coleus plant. When taken by mouth, coleus is used to treat allergies, dry eye, skin conditions such as eczema and psoriasis, obesity, painful menstrual periods, irritable bowel syndrome (IBS), urinary tract infections (UTI), bladder infections, advanced cancer, blood clots, sexual problems in men, trouble sleeping (insomnia), and convulsions.

				(Pullaiah-2022)
63.	*Coffea arabica L.*	Rubiaceae	widely used brewed drink worldwide, member of family Rubiaceae. Coffee powder is roasted seed of coffee beans. Phenolics and melanoidins are main bioactive constituents of coffee brew (Shradha *et al.*,-2018)	anti-cancerous, anti-microbial, and anti-diarrheal in nature. They also have analgesic, antioxidant and wound healing propertie (Shradha *et al.*,-2018)
64.	*Coleus amboinicus Lour*.	Lamiaceae	This herb has therapeutic and nutritional properties attributed to its natural phytochemical compounds which are highly valued in the pharmaceutical industry. Besides, it has horticultural properties due to its aromatic nature and essential oil producing capability. The leaves of the plant are often eaten raw or used as flavoring agents, or incorporated as ingredients in the preparation of traditional food. (Pullaiah-2022)	It is widely used in folk medicine to treat conditions like cold, asthma, constipation, headache, cough, fever and skin diseases. Studies have cited numerous pharmacological properties including antimicrobial, antiinflammatory, antitumor, wound healing, anti-epileptic, larvicidal, antioxidant and analgesic activities. It has been found to be effective against respiratory, cardiovascular, oral, skin, digestive and urinary diseases. (Pullaiah-2022)
65.	*Colocasia esculenta* (*L.) Schott*	Araceae	It has prestigious as well as economic value, playing an important role in traditional gift-giving and ceremonies. (Raghu *et al.*,-2018)	Used for treatment of various ailments including asthma, arthritis, diarrhea, internal hemorrhage, neurological disorders, and skin disorders. The juice is widely used for treatment of body ache and baldness.

				A wide range of chemical compounds including flavonoids, β-sitosterol, and steroids have been isolated from this species. (Raghu *et al.*,-2018)
66.	*Combretum woodii Dümmer*	Combretaceae	Used for basket-making (Eloff *et al.*,-2005)	treatment of different aliments including malaria and HIV, inflammation, infections, diabetes, malaria, bleeding, diarrhea and digestive disorders and others as a diuretic. (Eloff *et al.*,-2005)
67.	*Cordia Africana L.*	Boraginaceae	Cordia africana is a source of excellent high-value timber that is suitable for furniture, mortars, windows and house doors. It is one of the major timber species in Ethiopia that have been exploited commercially. Beehives are often hung on Cordia africana tree. It is therefore good for beekeeping and honey production (Manisha *et al.*,-2017)	
68.	*Cordia sebestena L.*	Boraginaceae	Fruit – raw or cooked (Manisha *et al.*,-2017)	The fruit is emollient. It is used in the treatment of fevers. The leaves are emollient. They are used in the treatment of bronchitis, coughs, fever and influenza. The plant has been used as a remedy for

				intestinal and stomach complaints, and also for bronchial affections. A syrup prepared from the bark, flowers and fruit is a local remedy for affections of the chest. (Manisha *et al.*,-2017)
69.	*Cordyline fruticosa* (*L.) A.Chev.*	Asparagaceae	Cultivated widely for food and religious purposes. The roots and young leaves can be cooked and eaten as survival food. The leaves of the green-leafed form are used to wrap food. An ornamental plant that is often used in hedge (Tk Lim-2015)	treatment of various disorders, such as fever, headache, diarrhea, coughs, haemoptysis, small pox, madness, skin eruptions, joint pains, rheumatic bone pains, swelling pain and it is also used for abortion. Roots used to treat baldness. Leaf juice used for earaches, sore eyes, cough, stomachaches, eczema and gastritis. Roots used for treating toothaches and laryngitis. (Tk Lim-2015)
70.	*Costus woodsonii Jacq.*	Costaceae		To treat high blood pressure and bladder disorder To treat ear infection: The plant juice are acidic and used to relieve fever and cough. To treat inflammation of male organ: To treat diarrhea, high fever, cough, dysentery, sore breast To treat itches, sore skin (caused by

				parasites). To treat ear ache To treat sore throat (Janet *et al.*,-2020)
71.	*Cucurbita moschata Duchesne*	Cucurbitaceae	Fruit – cooked. Some cultivars have a delicious flavour when baked, rather like a sweet potato. The flesh can be dried and ground into a powder then used in making breads etc. Some varieties can be stored for up to 9 months. Seed - raw or cooked. Rich in oil with a pleasant nutty flavour but very fiddly to use because the seed is small and covered with a fibrous coat. An edible oil is obtained from the seed. Leaves and young stems - cooked and used as a potherb or added to soups, stews etc. Flowers – cooked. (Gill woong *et al.*,-2021)	Crushed fresh seeds are used as an anthelmintic, and are also applied to skin infections and inflammations. anti-obesity, anti-diabetic, antibacterial, and anticancer effects. (Gill woong *et al.*,-2021)
72.	*Curcuma longa L.*	Zingiberecece ae	Commonly used as a spice in curries, food additive and also, as a dietary pigment. It has also been used to treat various illnesses in the Indian subcontinent from the ancient times. Used widely as a spice in South Asian and	People commonly use turmeric for osteoarthritis (David Zelman, MD, 2022)It is also used for hay fever (Nayana Ambardekar, MD, 2021), depression (Jennifer Casarella, MD, 2021), high cholesterol, a type of liver disease (Minesh Khatri, MD, 2021), and itching (Debra

			Middle Eastern cooking.	Jaliman, MD, 2021), but there is no good scientific evidence to support most of these uses. There is also no good evidence to support using turmeric for COVID-19.
73.	*Cyanthillium cinereum* (*L.) H.Rob.*	Compositae	Leaves – cooked. The slightly bitter leaves are used as a potherb or added to soup	Leaves have analgesic, antipyretic and anti-inflammatory effects. Paste of stem/bark is used to heal cuts, while flowers are traditionally used to treat conjunctivitis, arthritis and rheumatism. Root infusion is used as an antidote to scorpion sting and snake venom. (Ripu *et al*, 2009)
74.	*Cycas revoluta*	Cycadaceae	*Cycas* are used for decorative purposes, horticulture and in ceremonies. They are also used as food and medicine. Many species of *Cycas* are used as ornamental plants. Starch is obtained from *Cycas revoluta* (sago palm) and some other species.	Used as a traditional medicine to cure blood vomiting, flatulence, skin diseases, hypertension, gastrointestinal distress, cough, blood pressure, hair growth, astringent, diuretic, snake bite, dressing wounds, swollen glands and stomach purifying. Its phytochemical analysis have been revealed the presence of flavonoids, glycosides, non-protein amino acids, fatty acids, benzenoids, terpenes, amino acids, diterpenoids, triterpenoids, sterols, esters and steroids. The chemical constituents and crude extracts exhibit biological activities such as antimicrobial, antioxidant, cytotoxic,

				antileishmanial, anticancer and many more (Vinit 2021)
75.	*Cymbopogon martinii*	Poaceae	Used as agriculture fertilizers contains a conspicuous amount of potentially toxic metals. In order to prevent the contamination in the food chain, there is an urgent need for the development of sewage sludge clean up technology. The use of non-food, multi-harvest aromatic crops for phytoremediation of sewage sludge has many benefits. Besides the eco-friendly approach, plant biomass generated can be used to extract economically important essential oil free of heavy metals (Geetu *et al*, 2020).	Diabetes mellitus is a progressive metabolic disorder of glucose metabolism that eventually leads to micro- and macrovascular changes causing secondary complications that are difficult to manage [R. Klein, 1995]. The control of hyperglycemia is therefore of prime importance to halt the progression of the disease. While use of insulin, secretagogues, and sensitizers constitutes the predominant line of therapy, use of inhibitors of intestinal absorption of sugar is vital as they do not interfere with the sugar metabolism and help control hyperglycemia in a noninvasive manner. The alpha glucosidases are exoglycosidases found on the luminal surface of enterocytes containing maltase/glucoamylase and sucrase/isomaltase activity [R. Quezada-Calvillo, C. Robayo-Torres, A. Opekun *et al*., 2007]. Alpha glucosidase inhibitor, acarbose, is shown to control postprandial hyperglycemic shoot up [A. Cheng and R. Josse, 2004] and is safe and well tolerated

				[D. Neuser, A. Benson, A. Brückner, R. B. Goldberg, B. J. Hoogwerf, and D. Petzinna, 2005]. Alpha glucosidase inhibitors are useful as they reduce the cardiovascular risk [R. Klein, 1995].
76.	*Dendrobium nobile*	Orchidaceae	Ornamental	
77.	*Dendrobium x delicatum* (*F.M.Bailey) F.M.Bailey*	Orchidaceae	D nobile has become a popular cultivated decorative house plant, because it produces colorful blooms in winter and spring at a time when little else is in flower. D. nobile is one of the most widespread ornamental members of the orchid family. Its blooms are variegated in color, shading from white through pink and purple, and the many different cultivated varieties produce different sized and colored blooms mostly (Rokaya *et al*. 2013). The large numbers of D), nobile collected for ornamental and medicinal purposes from lower (subtropical) belts of Nepal and are traded in the major cities, which leads to population depletion (Acharya and Rokaya 2005).	In Nepal, the paste of the pseudobulbs is used to clear scars and marks in face. The steam has been used as herbal tea in the hilly region of Nepal (Acharya and Rokaya 2005). Used as tonic (Vaidya *et al*. 2000), and has antidiabetic (Li *et al*. 2015), anticancer, and anti-inflammatory properties (Hwang *et al*. 2010). Alkaloids from D nobile produced better neurobehavioral performance (Li *et al*. 2011). D. nobile is called as "gold in medicine." It treats a variety of diseases caused by deficiency of yin and body fluid. It is rich in polysaccharides that enhance immune function. Similarly, it has benefits for replenishing spleen and stomach, protecting liver and gallbladder, strengthening tendons and lowering lipid, lowing blood sugar, inhibiting tumors, improving eyesight,

				nourishing the skin, and prolonging life. Used in traditional Chinese medicine to treat fatigue, bloody stool (Wu 2005). Can induce aptosis (Williams *et al*. 2012). Nourishing lung and kidney, antioxidant, and anticancer (Ma *et al*. 2019).
78.	*Dieffenbachia seguine* (*Jacq.) Schott*	Araceae	Dendrobium blossoms are the most common species used in cooking. In Thailand, these edible flowers are dipped in butter and deep fried while many European cooks gamish desserts and cakes with them. The starchy stems of D. speciosum are roasted and eaten. (J. Orchid Soc., 2020)	The dried stems of Dendrobium nobile are used for making herbal medicines. Dendrobium enhances salivation and used for the treatment of dry mouth, dry coughs, and severe thirst. Flowers could be used to cure eye ailments. The tonic made from Dendrobium nourishes stomach, lungs, and kidneys. The plant is effective in treating pulmonary tuberculosis, impotence, and anorexia. The most prominently cited orchids in Chinese Traditional Medicine are several Dendrobium spp. which are used to make the drug shi-hu from D. catenatum, D. loddigesii, D. moniliforme, D. nobile, and D. officinale (Leon and Lin, 2017: Teoh, 2016). The pulp of pseudobulb is applied to treat boils and pimples. Juice of the plant is used to relieve fever.
79.	*Dracaena fragrans*	Asparagaceae	The toxic and imitant qualities of Dieffenbachia have been known and	Used to treat gout, dropsy, sexual impotence, and frigidity (Fochtman *et al*…

			utilized for years. In the upper Amazon, Indians combined D. seguine with curare to make arrow poisons (Remington and Wood, 1918).	1969). "Pieces of [its] Stalk [were] cut, and put into Batha and Fomenta- tions for Hydropick Legs and are thought very effectual" (Sloane, 1707). In addition, D, seguine was used to open obstructions and against inflamma- tions. Sliced root was employed against gout (Barnes and Fox, 1955).
80.	*Dracaena marginata*	Asparagaceae	Ornamental	
81.	*Dracaena reflexa Lam.*	Asparagaceae	Ornamental	In the present study, the antioxidant activity of successive leaf extracts of Dracaena reflexa was investigated using the scavenging activity on 1,1-diphenyl-2-picrylhydrazyl and reducing power by ferric reducing antioxidant power assay (Abha *et al*, 2015)
82.	*Dracaena surculosa Lindl.*	Asparagaceae	Ornamental	
83.	*Dracaena trifasciata*	Asparagaceae	Ornamental	Herein, a set of phytobiologics from *Dracaena trifasciata* were screened by molecular docking against HK2 and GLS1 to elucidate their binding affinity for effective inhibition. These phytobiologics

				should be further exploited *in-vitro* and *in-vivo* to develop improved therapeutics against RA (Rheumatoid Arthritis), which is the need of the hour. (Shanzay Ahmed *et al*, 2022)
84.	*Dracaena aubryana*	Asparagaceae	Ornamental	
85.	*Dryopteris filix-mas*	Dryopteridaceae	Ornamental, Medicinal	Used in traditional medicine, particularly in the Southern parts of Nigeria for the treatment of inflammation, rheumatoid arthritis, wounds and ulcers. *D. filix-mas* could be a prospective anti-inflammatory agent with no gastric irritation side effect, due to its bioactive component, quercetin-3-O-α-L-rhamnopyranoside. (Erhirhie *et al*, 2019)
86.	*Dypsis lutescens* (*H.Wendl.) Beentje & J.Dransf.*	Aracaceae	*D. lutescens* is widely used as an ornamental plant, which possesses strong antioxidant and anticancer activities. (Mai *et al*, 2019)	The alcoholic extract of *Dypsis lutescens* exerted potential hepatoprotective action, maintaining liver health and functions. (Mai *et al*, 2019)
87.	*Epipremnum aureum*	*Arecaceae*	In Asia, however, Scindapsus aureus is grown as money plant in houses. Epipremnum aureum is an excellent air cleansing plant. Its decorative marbled	

			leaves and easy maintenance make it very popular amongst indoor plants. (Srivastava *et al*., 2015)	
88.	*Episcia cupreata*	Gesneriaceae		
89.	*Erythroxylum coca Lam*	Erythroxylum		Enhancing work capacity, including the reduction of fatigue and the mitigation of thirst and hunger. Coca leaf tea is commonly used as an anecdote by the travelers and climbers Used as a topical anesthetic, analgesic, diuretic, antispasmodic, antidepressant, and mood-elevating energizing tonic meant for normalizing bodily physiology
90.	*Euonymus fortunei*	Celastraceae	Plants can be grown as a low hedge.the varieties 'Emerald and Gold' and 'Variegatus' are normally used. They are very tolerant of clipping	Plants contain the anticancer compound dulcitol. The plant is used in gynaecological applications.
91.	*Euphorbia hirta*	Euphorbiaceae		Against Asthma, Bronchitis, Coughs, Dengue fever, Hay fever. Tumors. Digestive problems. Intestinal worms. Gonorrhea. (separate by comma)
92.	*Euphorbia milii Des*	Euphorbiaceae	In Nepal the latex is used for treating strains, while in China it is used for the treatment of hepatitis and abdominal	Against Asthma, Bronchitis, Coughs, Dengue fever, Hay fever. Tumors. Digestive problems. Intestinal worms. Gonorrhea.

	Moul.		edema.	(separate by comma)
93.	*Euphorbia prostrata Aiton*	Euphorbiaceae		Used for grade I and II hemorrhoids (piles). an anti-oxidant and anti-inflammatory action that helps in shrinkage of engorged blood vessels and arresting bleeding, thereby relieving the pain, congestion and discomfort caused by haemorrhoids. Against Piles, Varicose Veins, Asthma, Bronchitis
94.	*Euphorbia pulcherrima Willd. Ex Klotzsch*	Euphorbiaceae	Poinsettia (Euphorbia pulcherrima) is a plant with red bracts (leaves) native to the US, Mexico, and Guatemala. It's often used as a Christmas decoration. (Grace *et al.*,-2015)	Euphorbia pulcherrima is an important medicinal plant that is used in a traditional system for its curative properties such as analgesic potency, antipyretic, anti-inflammatory, sedation potential, and antidepressant and cure of diseases such as skin diseases. (Grace *et al.*,-2015)
95.	*Fargesia murielae* Franch.	Poaceae	Edible Uses Young shoots - raw or cooked.A bit bitter, and on the thin side, but very pleasant raw. The plant is harvested from the wild for local use as a food and source of materials. It is often grown as an ornamental in gardens, where it can be used as a hedge and a screen.	

			The canes can be used as plant supports (Ken *et al.*,-2003)	
96.	*Ficus binnendijkii Miq.*	Moraceae	Best for improving air quality indoors. (Abdul *et al.*,-2006)	
97.	*Ficus hispida* L. F.	Moraceae		Used in the treatment of ulcers, psoriasis, anemia, piles jaundice, vitiligo, hemorrhage, diabetes, convulsion, hepatitis, dysentery, biliousness, and as lactagogue and purgative. Antineoplastic, cardioprotective, neuroprotective and anti-inflammatory effects were also reported recently. (Abdul *et al.*,-2006)
98.	Ficus racemose L.	Moraceae	The *tree is cultivated to provide shade for coffee trees.* (*Abdul et al.,-2006)*	Used in Ayurveda, the ancient system of Indian medicine, for various diseases/disorders including diabetes, liver disorders, diarrhea, inflammatory conditions, hemorrhoids, respiratory, and urinary diseases. It is pharmacologically studied for various activities including antidiabetic, antipyretic, anti-inflammatory, antitussive, hepatoprotective, and antimicrobial

				activities (Abdul *et al.*,-2006).
99.	*Ficus septica Burm.f.*	Moraceae		The roots are used as a poultice in boils and a decoction is prescribed as diuretic. The latex is used to cure certain varieties of herpes, and wounds caused by poisonous fish. In Java, the dried leaves were formerly used as a substitute for opium or mixed with it. In the Philippines, decoction of roots used as diuretic. Poultice of roots used for boils. Fresh leaves are sudorific; bruised with oil, used for headaches. Leaves applied externally as antirheumatic. Roots used for neutralizing toxins; also, for prevention of asthma. Fruits used as laxative. Latex used for herpes. Used by the Ayta people of Pampanga for wounds. Used by the Ifugaos for diarrhea, cough, malaria and stomach problems. In southern Mindanao, bark used for diarrhea. The Subanens in Dumingag in Zamboanga

				del Sur use decoction of roots and stems for headache and fever. Used by the Ata Matigsalog in Arakan, north Cotobato for treating skin infections. (Abdul *et al.*,-2006)
100.	*Furcraea foetida* (*L.) Haw.*	Asparagaceae	For products and as an ornamental plant for gardens. Its leaves are used to produce a natural fiber similar to sisal. The leaves are covered in small hairs that help trap air and prevent water loss. (Sanjay *et al.*,-2018)	Used in traditional medicine, particularly by indigenous people in Central America, for its antibacterial properties. It is also commonly known as green aloe, giant cabuya and Mauritius hemp. (Sanjay *et al.*,-2018)
101.	*Gymnocarpium dryopteris* L.	Cystopteridaceae	Attractive leaves make it a popular ornamental species that grows best at the front of borders because it doesn't grow very tall. This fern was used by the Cree native Americans to repel mosquitoes. (Kathleen *et al.*,-1993)	
102.	*Hedychium coronarium* J.Koenig[1	Zingiberaceae	Decorative purpose (Pooja *et al.*,-2017)	Extract of rhizomes is given in bronchitis. Decoction of rhizomes is used for gargling in tonsillitis or simply as a mouth wash to avoid bad breath. The herb is used as a febrifuge, tonic and anti-rheumatic. Rhizome paste is applied on bruises and

				sprains. (Pooja *et al.*,-2017)
103.	*Heliconia psittacorum* L.	Heliconiaceae	Heliconia Psittacorum is an ornamental plant known for its beautiful flowers. It is grown as an ornamental plant all over the world. It can be used to add colour and beauty to your garden and can serve as the centrepiece of your yard. (Pena *et al.*,-2015)	
104.	*Hemigraphis* alternata Schott	Acanthaceae	Cultivated as an ornamental in borders, particularly for its attractive foliage, but also as a ground cover. (Rahman *et al.*,-2019)	In Java, they are considered styptic, and used to stop bleeding wounds, haemorrhage after parturition, venereal discharges, dysentery and haemorrhoids. The leaves in decoction are taken internally for excessive menstruation, and are applied externally for skin complaints. The leaves are eaten as a cure for gallstones (Rahman *et al.*,-2019)
105.	*Hibiscus rosa-sinensis L.*	*Malvaceae*	They are used particularly as an ingredient in herbal teas, comes from the red calyx, although the leaves, seeds, and flowers are also used in local forms of traditional medicine. (Kadam *et al.*,-2009)	This plant has various important medicinal uses for treating wounds, inflamation, fever and coughs, diabetes, infections caused by bacteria and fungi, hair loss, and gastric ulcers in several tropical countries (Kadam *et al.*,-2009)

106.	*Hidyotis auricularia* L.	Rubiaceae		Plant used as an emollient and prescribed for dysentery and cholera in India. In southern India, decoction of green leaves and roots used for treatment of colitis. In Sri Lanka used for dysentery, diarrhea, and lowering blood pressure. (Edward *et al.*,-2003)
107.	*Hippobroma longiflora L.*	Campanulaceae		It's been used to treat venereal diseases, asthma, bronchitis, "rheumatism," and even epilepsy and hydrophobia. (Edward *et al.*,-2003)
108.	*Hydrocotyle sibthorpiodes* Lam.	Araliaceae	The whole plant is eaten raw or cooked as a potherb.It has a parsley-like aroma (Eswar *et al.*,-2021)	To treat fever, edoema, dysentery, rheumatalgia, whooping cough, jaundice, throat discomfort, psoriasis, herpes zoster infection, hepatitis-B infection, calming pain, dysmenorrhoea, and carbunculosis. (Eswar *et al.*,-2021)
109.	*Hydrocotyle tripartita* R.Br. ex A.Rich.	Araliaceae	Can be grown emersed like almost all aquatic plants and works well in a moist terrarium, vivarium or plaudarium. This is a fantastic, easy, and extremely versatile plant that can be used as a carpet, forground, midground or even background display. (Eswar *et al.*,-2021)	
110.	*Impatiens*	Balsaminac		Leaves and roots dried, pounded mixed with

	wallariana Hook.f.	eae		water, juice drank as abortifacient. North American impatiens has been used as herbal remedies for the treatment of bee stings, insect bites, and stinging nettle (Urtica dioica) rashes. They are also used after poison ivy (Toxicodendron radicans) contact to prevent a rash from developing. (Carr *et al.*,-2004)
111.	*Ixora chinensis* Linn.	Rubiaceae	As ornamentals and are commonly planted in gardens, parks and along roadsides. . The wood of Ixora is occasionally used, often for implements and comparatively small objects; only a few species reach timber size. (John *et al.*,-2012)	Used in traditional medicine, e.g. as an astringent and to treat dysentery and tuberculosis. The use in China and India is widespread. An infusion of the leaves or flowers of several species is administered to treat fever, headache and colic. A decoction of the roots is used as a sedative; the roots are believed to be more potent. The internal application is based on stomachic and antiseptic properties, while external applications are based on astringent and antiseptic properties. (John *et al.*,-2012)
112.	*Ixora coccinea* linn.	Rubiaceae	Used to decorate gardens and as hedges (John *et al.*,-2012).	Roots and flowers are used in dysentery, dysmenorrhea, leucorrhoea, hemoptysis, and

				catarrhal bronchitis. Leaves are used in diarrhea. Roots are also used in hiccup, nausea, loss of appetite and externally for the treatment of sores, eczema, chronic ulcers. (John *et al.*,-2012)
113.	*Ixora malabarica L.*	Rubiaceae		Roots and flowers of Ixora are used in dysentery, dysmenorrhea, leucorrhoea, hemoptysis, and catarrhal bronchitis. Leaves are used in diarrhea. Roots are also used in hiccup, nausea, loss of appetite and externally for the treatment of sores, eczema, chronic ulcers. Roots contain aromatic acrid oil, tannin, fatty acids. (John *et al.*,-2012)
114.	*Jasminum sambac* (*L.) Aiton*	Oleaceae	Sampaguita garlands are used as a form of bestowing honour, veneration, or accolade. These are primarily used to adorn religious images, religious processions and photographs of the dead on altars. These are placed around the necks of living persons such as dignitaries, visitors, and occasionally to graduating students Buds strung into ropes several metres long are often used to decorate formal events such state occasions at Malacañang Palace,	Jasmine has been used for liver disease (hepatitis), pain due to liver scarring (cirrhosis), and abdominal pain due to severe diarrhea (dysentery). It is also used to prevent stroke, to cause relaxation (as a sedative), to heighten sexual desire (as an aphrodisiac), and in cancer treatment. South Asian folkloric medicinal plant that has traditionally been used to treat cardiovascular problems (phanukit *et al.*,

			weddings, and are sometimes used as the ribbon in ribbon cutting ceremonies. Though edible, the flower is rarely used in cuisine, with an unusual example being flavouring for ice cream (Phanukit *et al.*,-2012)	2012)
115.	*Kopsia fruticosa* (*Roxb.) A.DC.*	Apocynaceae	It contains latex used in arrow poison. (Eric *et al.*,-2013)	used medicinally for sores and syphilis; also cholinergic. (Eric *et al.*, 2013)
116.	*Lantana camara L.*	Verbanaceae	They consume the nectar for food and preferentially use these plants as a location for courtship. (Gaurav *et al.*,-2012)	treatment of skin itches and as an antiseptic for wounds and externally for leprosy and scabie. Studies conducted in India have found that Lantana leaves can display antimicrobial, fungicidal and insecticidal properties. *L. camara* has also been used in traditional herbal medicines for treating a variety of ailments, including cancer, skin itches, leprosy, chicken pox, measles, asthma and ulcers. *L. camara* extract has shown to reduce gastric ulcer development in rats. (Gaurav *et al.*, 2012)
117.	*Laportea aestuans* (L.)	Urticaceae		Used as food and to prevent and treat bone diseases, such as osteoporosis, in traditional

	Chew			Brazilian medicine. (Ganiyat *et al.*,2014)
118.	*Licuala grandis H.Wendl.*	Araceae	Disease & Pests: Generally, it's free of serious diseases and pests, protect against mealy bugs on matured fruits. Protect from frost (Sultana *et al.,* 2019)	The large umbrella-size leaves of Licuala grandis are used for thatching. (Sultana *et al.,*2019)
119.	*Ligustrum sinense* L.	Oleaceae	This species is very amenable to trimming and is much cultivated as a hedge and screen plant (Sultana *et al.,* 2019)	The bark is used as an antipyretic (Suultana *et al.,* 2019)
120.	*Lindernia procumbens* (Krock.)	Linderniaceae	In traditional Chinese medicine, the plant is said to clear liver heat, cool the blood, diminish inflammation and detumescence. It is used as a remedy for gonorrhoea and the juice is given to children who pass green-coloured stools. (Mei *et al.,*-2014)	This is one of several species that are often used more or less interchangeably.to treat dysentery and other intestinal problems. A decoction of the leaves is given after childbirth (Mei *et al.,*2014)
121.	*Lycopersicon esculentum Mill.*	Solanaceae		Pulped fruit - skin-wash for an oily skin. Sliced fruits - first-aid treatment for burns/ scalds /sunburn. Skin of tomato fruit is a good source of lycopine - protect people from heart attacks/ treat an enlarged prostate and the difficulties in urination that accompanies it (Rodriguez *et al.,*-2008)
122.	*Malpighia coccigera* L.	Malpighiaceae	Grown as an ornamental plant and often used to make bonsai. The fruit are favorite by birds that disperse the seeds through droppings (Paul *et al.,*-	

			2003)	
123.	*Mangifera indica L.*	Anacardiaceae	The tree is more known for its fruit rather than for its timber. However, mango trees can be converted to lumber once their fruit-bearing lifespan has finished. The wood is susceptible to damage from fungi and insects.plywood and low-cost furniture (Masud *et al.*,-2016)	Various parts of plant are used as a dentrifrice, antiseptic, astringent, diaphoretic, stomachic, vermifuge, tonic, laxative and diuretic and to treat diarrhea, dysentery, anaemia, asthma, bronchitis, cough, hypertension, insomnia, rheumatism, toothache, leucorrhoea, haemorrhage and piles (Masud *et al.*,-2016)
124.	*Melissa officinalis* L.	Lamiaceae		Reduce stress and anxiety, promote sleep, improve appetite, and ease pain and discomfort from indigestion (including gas and bloating, as well as colic). (Behjat *et al.*,-2016)
125.	*Molineria capitulata* (*Lour.) Herb.*	Hypoxidaceae	In the Southeast Asia, the plant is also used as food wrapping and the fibres are used to make fishing nets, ropes and false hair	treat diseases such as hemorrhoids, asthma, and consumptive cough. Treating several chronic diseases due to its high antifungal, antioxidant, cytotoxic, thrombolytic, anti-inflammatory, and analgesic activities.
126.	*Momordica charantia*	Cucurbitaceae		Used for the treating of diabetes-related conditions, Antidiabetic, abortifacient, anthelmintic, contraceptive, dysmenorrhea, eczema, emmenagogue, antimalarial, galactagogue, gout, jaundice, abdominal

				pain, kidney (stone), laxative, leprosy, leucorrhea, piles, pneumonia, psoriasis, purgative, rheumatism, fever and scabies)
127.	*Morella faya* (*Aiton) Wilbur*	Myricaceae	Ornamental /Medicinal	
128.	*Moringa oleifera*	Moringaceae	Excellent source of phytochemicals Incorporating it mainly in biscuits, cakes, brownies, meats, juices and sandwiches. The results are fascinating, as the products increase their nutritional value Plant is edible, including its flowers	Anti-diabetic, anti-inflammatory, anticarcinogenic, antioxidant, cardioprotective, antimicrobial and hepatoprotective properties.
129.	*Moringa peregrina*	Moringaceae	*Moringa peregrina* were used for home construction and fires, and its leaves consumed as food and livestock feed. In eastern Oman, young *Moringa peregrina* saplings would be dug up and its roots slowly roasted in a fire for food. In Oman, oil extracted from pods was used in traditional medicine and in perfumery. The seed contains a fragranced light oil, made of an excellent nature, as it does not grow rancid. A high quality behen oil was produced from the seeds of *Moringa*	

			peregrina growing in Saudi Arabia (the Hijaz) and in Yemen.	
130.	*Murraya koenigii*	Rutaceae	Used in food	Green leaves of M. koenigii are used in treating piles, inflammation, itching, fresh cuts, dysentery, bruises, and edema. The roots are purgative to some extent. They are stimulating and used for common body aches. Anti-oxidative, hepatoprotective, antimicrobial, antifungal,, anti-inflammatory, and nephroprotective activities in animal models
131.	*Musa accuminata*	Musaceae	The leaves are occasionally used for wrapping food The leaves and shoots yield a fibre which can be used for making a high quality cloth. The male flowers are eaten raw or roasted and eaten like artichokes	Treatment of various diseases such as fever, cough, bronchitis, dysentery, allergic infections, sexually transmitted infections, and some of the non-communicable diseases.antioxidant, antidiabetic, immunomodulatory, hypolipidemic, anticancer, and antimicrobial especially anti-HIV activity
132.	*Myxopyrum smilacifolium*	Oleaceae		Treatment of cough, rheumatism, cephalalgia, notalagia and otopathy
133.	*Nephrolepis exaltata* (L.) Schott	Nephrolepidaceae	Used in the manufacture of hats, mats, baskets and other wickerwork. In South-East Asia and elsewhere many Nephrolepis	

			species are used and commonly cultivated as ornamentals, (Manal *et al.*,-2016)	
134.	*Nephrolepis falcata* (L.)Schott	Nephrolepidaceae	Used in landscaping, as a ground cover, and in hanging baskets. Leaves are boiled as a vegetable and the roots are pounded to make flour. (Manal *et al.*,-2016)	
135.	*Ocimum americanum* L.	Lamiaceae	The essential oil of the plant is used in soap and cosmetics. (Neelu *et al.*,-2005)	Decoctions are used for coughs, pounded leaves are used for respiratory problems, the whole plant is used in baths to treat rheumatism, renal colic and calcification. (Neelu *et al.*,-2005)
136.	*Ocimum tenuiflorum* L.	Lamiaceae	Used in many rituals and functions (Neelu *et al.*,-2005)	Aiding cough, asthma, diarrhea, fever, dysentery, arthritis, eye diseases, indigestion, gastric ailments (Neelu *et al.*,-2005)
137.	*Oldenlandia corymbosa L.*	Rubiaceae		clear heat and toxins, activate blood circulation, promote diuresis and relieve stranguria. It is also active against appendicitis, hepatitis, pneumonia, cholecystesis, urinary infection, cellulites and snake bite. Chinese folk medicine describes the plant to treat skin sores, ulcers, sore throat, bronchitis, gynecologic infections and pelvic

				inflammatory diseases. The plant contains flavonols, phenolic acids, anthocyanidins, irridoids and alkaloids. A scrutiny of literature revealed some notable pharmacological activities of the plant such as hepatoprotective, cytotoxic anti-oxidant, oxytocic and anti malerial activity. (Somsak *et al.,*-2008)
138.	*Ophiopogon jaburan* Ker Gawl.	Asparagaceae		Treatment of dry coughs, fevers, thirst, dry constipation, insomnia, anxiety and palpitations. It is also frequently used in polyherbal treatments of diabetes mellitus.The roots have an antibacterial action, inhibiting the growth of *Staphylococcus, E. coli, Bacillus subtilis.* Nodules on the fibrous roots are used as a nutritive tonic in the treatment of TB (Hui *et al.,*-2023)
139.	*Oplismenus undulatifolius* (Ard.) P. Beauv. 1812[1]	Poaceae	Food source for many species (Stephanie *et al.,*-2013)	

140.	*Osmoxylon lineare* (*Merr.) Philipson*	Araliaceae	Species used in Japanese-style gardens for its fine leaf texture. Also cultivated as hedges. Leaves and stems – cooked. Boiled in water or in coconut milk It is used in Japanese-style gardens for its fine leaf texture. (Fatima *et al.*,-2018)	
141.	*Pandanus tectorius* Parkinson ex Du Roi[2]	Pandanaceae	Decorative purposes (Thaman *et al.*,-2006)	For headache, arthritis, and stomach spasms a decoction of leaves is used. A poultice of fresh leaves mixed with oil is also used for headaches, and pulverized dried leaves was used to facilitate wound healing. A decoction of roots is believed to have aphrodisiac and cardiotonic properties. (Thaman *et al.*,-2006)
142.	*Pentas lanceolata* (Forssk.) Deflers[1]	Rubiaceae	Use in decorative purposes (Geetha *et al.*,-2005)	It is used as an anti-inflammatory remedy for rheumatoid arthritis, tendonitis and gout. It is utilised as an antispasmodic to treat young children's colic pain. It's used as a tonic for fatigue or debility caused by chronic conditions such as diabetes mellitus or hypothyroidism. (Geetha *et al.*,-2005)

143.	*Peperomia obtusifolia* (L.)A.Dietr	Piperaceae	The Peperomia obtusifolia provides many benefits, from reducing the carbon dioxide levels to increasing humidity in your living space. it helps remove certain pollutants such as nitrogen dioxide and benzene. it reduces airborne dust levels and keeps the temperature down (Poole et.al-1980)	In the Guianas, folkloric use for malaria and arthritis. Decoction of stem and leaves applied as febrifuge. Also, used for albuminuria and malaria. The French Guiana Wayapi crush the aerial parts into tampons on hypertrophied lesions caused by malaria. The Kubeo Indians of Columbia use the crushed leaves over painful arthritic joints. Succulent leaves used as antiscorbutic. In Asian ethnomedicine, used for skin and stomach problems and diarrhea (Poole et.al-1980)
144.	*Peperomia pellucida (L.) Kunth*	Piperaceae	mostly grown for its ornamental foliage, the entire plant is edible, both cooked and raw (Poole et.al-1980)	used as a food item as well as a medicinal herb. used to manage inflammatory illnesses such as conjunctivitis, and gastrointestinal and respiratory tract disorders in tropical and subtropical regions. little is known about its pharmacological mechanism of action against eye diseases. (Poole et.al-1980)
145.	*Peperomia serpens*	Piperaceae		To treat inflammation, pain and asthma. (Poole et.al-1980)
146.	a. *Perilla*	Lamiaceae	Used as an ingredient, for flavor and as a	As an antidote, perilla leaf has been used in

	frutescens var. crispa		spice in cooking, garnish, soups, vegetable salad, sushi, as a food colorant, and to wrap and eat cooked food in Japan, India, and Korea. In Korea, perilla seed oil is used for cooking and different industrial uses . Seeds as spice also used to prepare sauce in India. The seed is used for meat preservation and flavoring foods (Sulsimani et.al-2018)	fish and crab dishes in China and Japan for a long time. In India, the whole plant has been used to treat stomach disorders and for flavoring curries, and in combination with *Artemisia scoparia* is used as a refrigerant. (Sulsimani et.al-2018)
147.	*Philodendron burle* Maxi *G.M.Barroso*	Areceae	Ornamental, indoor plant (Goshmin-2022)	
148.	*Philodendron hederaceum* Schott.	Areceae	Philodendrons can purify the air, reduce stress, and help us get a good night's sleep. (Nainwal et.al-2006)	
149.	*Philodendron melinonii* Bron gn.ex Regel	Areceae	Used for decorative purposes and as garden olants (Nainwal et.al-2006)	
150.	*Philodendron xanadu* Croat,Mayo &J.Boos	Areceae	Improve air quality in the home. Low- or mid-ground planting in subtropical gardens (Nainwal et.al-2006)	
151.	*Phyllanthus amarus*	Phyllanthac		It is bitter, astringent, stomachic, diuretic, febrifuge and antiseptic. The whole plant is

	Schumach. & T'honn.	eae		used in 58onorrhoea, menorrhagia and other genital affections. It is useful in gastropathy, diarrhoea, dysentery, intermittent fevers, ophthalmopathy, scabies, ulcers and wounds. (Ram patel et.al-2011)
152.	*Phyllanthus niruri*	Phyllanthaceae		Anti-inflammatory anti-hyperuricemic and diuretic properties . (Ram patel et.al-2011)
153.	b. *Phyllanthus urinaria L.*	Phyllanthaceae		used in folk medicine as a cure to treat jaundice, diabetes, malaria, and liver diseases. Pharmacological activities include anticancer, hepatoprotective, antidiabetic, antimicrobial, and cardioprotective effects. (Ram patel et.al-2011)
154.	*Pilea microphyllaii* (L.) Liebm	Urticaceae	*P. microphylla* is cultivated in gardens and as a pot plant, and also as a ground cover. A cultivar exists with leaves blotched white and pink. In the Grenadines the decoction is applied to children with diarrhoea. In the Philippines an infusion of entire plants is used as a diuretic (Chahardehi et.al-2010)	In Peninsular Malaysia *P. microphylla* plants, pounded with a little garlic and salt, have been applied to the abdomen of babies to expel worms. In Guatemala crushed plants are applied to sores and bruises, and a decoction of whole plants is used internally in Cuba as a diuretic and to treat liver and urinary inflammation, and in Jamaica as a tonic and to treat asthma. (Chahardehi et.al-2010)

155.	*a. Pilea peperomioidesi* Diels,1912	Urticaceae	Gives positive vibe to the surroundings. Also believed to bring luck. they provide cleaner air. (Chahardehi et.al-2010)	
156.	*Piper betle* L.	Piperaceae	Has been used as a religious, recreational and medicinal plant in Southeast Asia. The leaves, which are the most commonly used plant part, are pungent with aromatic flavor and are widely consumed as a mouth freshener. (Vandana et.al-2014)	It is carminative, stimulant, astringent and is effective against parasitic worms. Experimental studies have shown that it possess diverse biological and pharmacological effects, which includes antibacterial, antifungal, larvicidal, antiprotozal, anticaries, gastroprotective effects, free radical scavenging, antioxidant, anti-inflammatory hepatoprotective, immunomodulatory, antiulcer and chemopreventive activities. . (Vandana et.al-2014)
157.	*Pistia stratiotes* L.[1]	Araceae	In Gambia, the plant is used as an anodyne for eyewash. Juice of plant is used by Mundas in ear complaints (fazli et.al-2014)	It is useful in "Tridosha," fever, and diseases of blood. The root is laxative, emollient, and diuretic. Leaves infusions have been mentioned in the folklore to be used for dropsy, bladder complaints, kidney afflictions, hematuria, dysentery, and anemia. The ash of plant is applied to the ringworm of the scalp. Leaves are used in eczema, leprosy, ulcers,

				piles, and syphilis. Juice of leaves boiled in coconut oil is applied externally in chronic skin diseases. (fazli et.al-2014)
158.	*Platycladus orientalis* (L.)Franco[2]	Cupressaceae	Decorative (**Zhen Shen et.al-2018)**	Used to treat coughs, excessive mucus secretion, chronic bronchitis, bronchiectasis, and asthma, (Zhen Shen et.al-2018)
159.	*Plumeria alba*	Apocynaceae		Used as folklore medicine known for its antimicrobial, anti-inflammatory, and antioxidant properties. The extracts from *P. alba* obtained from the leaves, bark, and flowers, are commonly used to manage bacterial, fungal, and viral infections such as herpes, scabies, and fungal infections. The constituents of the *P. alba* plant have shown promising antihelmintic, antipyretic, and antirheumatic properties. (Zhen Shen et.al-2018)
160.	*Plumeria rubra L.*	Apocynaceae		used to treat cardiovascular disorders. The present investigation was methodically planned to investigate the pharmacological foundations for the therapeutic effectiveness of P. rubra in cardiovascular illnesses and its underlying mechanisms. The plant has also been shown to be an

				antifungal, antiviral, analgesic, antispasmodic, and hypoglycemic The sap of the plant is used as a laxative and is a remedy for bloating and stomachaches. The bark is said to be purgative and is also used for venereal sores. The flowers can be boiled in water or juice and made into a salad to promote bowel movement, urine flow, and to control gas and phlegm. The flowers are also used in the treatment of asthma (Zhen Shen et.al-2018)
161.	*Poa annua L.*	Poaceae	An important food plant for the caterpillars of many species of butterfly. (Katarzyna et.al-2008)	
162.	*Podocarpus macrophyllus* (Thunb)Sweet	Podocarpaceae	Fruit are eaten raw or cooked in pies, cakes etc. Landscape Uses: Border, Container, Espalier, Pest tolerant, Hedge, Screen, Standard, Superior hedge, Specimen. Plants are used for hedging in N. America The wood is used in making furniture, utensils, paper, and farm implements (Dong Zhang et.al-2013)	The stem bark is used in the treatment of worms (especially ringworm) and blood disorders. A decoction of the fruit is tonic for the heart, kidneys, lungs and stomach. (Dong Zhang et.al-2013)

163.	*Polypodium cambricum*	Polypodiaceae	To prevent soil erosion and provide cleaner air. Used to decorate gardens by planting on hanging pots. (Dong Zhang et.al-2013)	
164.	*a. Polypodium interjectum*	Polypodiaceae	ornamental (Dong Zhang et.al-2013)	
165.	*Polyscias fruticosa* (*L.) Harms*	Araliaceae		Herbal medicines to support the treatment of some diseases related to neurodegeneration such as Parkinson's and Alzheimer's diseases. (Dong Zhang et.al-2013)
166.	*Polyscias guilfoyeli*	Araliaceae	Cultivated throughout the tropics and subtropics as an ornamental, and used as a hedge or windbreak. (Dong Zhang et.al-2013)	
167.	*Polyscias scutellaria*	Araliaceae	Garden plant (Dong Zhang et.al-2013)	The leaves and root can be used as an antiseptic and deodorant. (Dong Zhang et.al-2013)
168.	*Portulacaria afra* Jacq.	Didiereaceae	It is heavily browsed by game and domestic stock and highly favoured by tortoises. (Sobia et.al-2022)	The leaves are chewed as a treatment for sore throat and mouth infections while the astringent juice is used for soothing ailments of the skin such as pimples, rashes and insect stings. The juice is also used as an antiseptic and as a treatment for sunburn. .

				(Sobia et.al-2022)
169.	*Psychotria viridis* Ruiz & Pav.	Rubiaceae	Prevents soil erosion (Edison et.al-2011)	The Machiguenga people of Peru use juice from the leaves as eye drops to treat migraine headaches. In Ecuador Kitchwa shamans and medicine men and women have used the leaves of this plant for centuries to treat many illnesses. (Edison et.al-2011)
170.	*Pteris vittata L.*	Pteridaceae	It is grown in gardens for its attractive appearance, or used in pollution control schemes: it is known to be a hyperaccumulator plant of arsenic used in phytoremediation. , (Zhenyan et.al-2019)	used for wound healing. This fern is arsenic hyper-accumulator but its therapeutic aspect is still unexplored. Hence, the present study was put forth to study its aqueous extract and ethanolic extract in diabetic wound healing. , (Zhenyan et.al-2019)
171.	*Pyrrosia lanceolata*	Polypoidiaceae	Ornamental	
172.	*Quercus suber L.*	Fagaceae	tree is as a source of cork, which is obtained by peeling the bark away from the trunk. The cork is mainly used for wine stoppers, but other products also include insulation panels, floor and wall tiles and sound-proofing materials in the car industry. The roasted seed of many Quercus species has been used as a coffee substitute.	A decoction or infusion is astringent, antibacterial, antifungal, antiseptic, styptic and haemostatic. It is taken internally to treat conditions such as acute diarrhea, dysentery and haemorrhages. Externally, it is used as a mouthwash to treat toothache or gum problems and is applied topically as a wash on cuts, burns, various

			(Marta et.al-2007)	skin problems, haemorrhoids and oral, genital and anal mucosa inflammation. Extracts of the plant can be added to ointments and used for the healing of cuts. . (Marta et.al-2007)
173.	*Red siam aglaonema*	Araceae	ornamental	
174.	*Rhododendron luteum Sweet*	Ericaceae	Ornamental (Debjyoti-2017)	
175.	*Rhododendron simsii Planch.*	Ericaceae	ornamental (Debjyoti-2017)	
176.	*Rivina humilis* L.	Phytolaccaceae	Cultivated as an ornamental in warm regions throughout the world and is valued as a shade-tolerant groundcover. It is also grown as a houseplant and in greenhouses. The juice made from the berries was used as a dye and ink at one time. (Diego Garcia-1994)	Leaves were employed to treat wounds. . (Diego Garcia-1994)
177.	*Rosa chinensis* Jacq.	Rosaceae	The plant produces semi-double or double flowers in red, pink, white or purple. Gardeners prefer this plant due to its attractive flowers and pleasant fragrance. The China rose plant is widely popular and	The flower buds help improve blood circulation and ease stomach pains and swellings in the body. The plants' leaves, fruits and roots are used in treating conditions such as arthritis, boils

			used in landscaping as an ornamental garden plant. (Jie Xing et.al-2005)	and coughs. The seeds are a source of Vitamin E. . (Jie Xing et.al-2005)
178.	*Roystonea regia* (*Kunth) O.F.Cook*	Arecaceae	The seed is used as a source of oil and for livestock feed. Leaves are used for thatching and the wood for construction. The very young leaf buds are cooked and eaten as a vegetable. Eating this bud will lead to the eventual death of the tree since the plant is unable to form side shoots. They fall to the ground when ripe. (TT Chang et.al-2011)	The roots are used as a diuretic, and for that reason they are added to tifey, a Haitian drink, by Cubans of Haitian origin.They are also used as a treatment for diabetes.. . (TT Chang et.al-2011)
179.	*Salvinia natans* (L.)	Salviniaceae	These types of ferns are excellent for supplying shade over large areas of water. Providing both a refuge for small fish to take shelter and a natural filter from sunlight reducing the spread of algae. (Agnieszka et.al-2019)	
180.	*Sansevieria erythraeae* L.	Asparagaceae	Ornamental (Kung et.al-2005)	
181.	*Sansevieria trifasciata* L.	Asparagaceae	Looking good and improving air quality. Help remove toxic air pollutants. In small	By releasing oxygen and adding moisture to the air, snake plants can help lessen the

			contributions, snake plants can absorb cancer-causing pollutants, (Kung et.al-2005)	impact of airborne allergens like dust and dander. (Kung et.al-2005)
182.	*Sansevieria trifasciata Prain* L.	Asparagaceae		The plant is used to treat ringworm and fungal diseases. The leaf sap is applied directly on infected sores, cuts and grazes, it is also used to treat fungal and scabies infections. (Kung et.al-2005)
183.	*Saraca asoka* (Roxb.)Willd.[1]	Fabaceae		Bark astringent used in uterus infections. It has a stimulating effect on endometrium and ovarian tissue and in useful in menorrhagia due to uterine fibroids, in leucorrhoea and internal bleeding haemorrhoids, and hemorrhagic dysentery. Bark also contains an oxytoxic principle. (Arya et.al-2004)
184.	*b.Sauropus androgynus* (L.)Merr[2]	Phyllanthaceae		Sauropus androgynus (SA) is a medicinal plant with high antioxidant potential. The leaves of this plant have been traditionally used to treat certain diseases, for weight loss, and as vegetable dishes. leaves contain an adequate amount of macronutrients and having most of the

				micronutrients. (Tamanna arif-2020)
185.	*Schefflera arboricola* L.	Araliaceae		Analgesic, anti-inflammatory, anticancer, hypoglycemic, antimicrobial, hepatoprotective, neuroprotective, antimalarial, and antiallergic effects. (Iqbal *et al.*,-2021)
186.	*Sedum cepaea* L.	Crassulacea e	Leaves of all members of this genus are edible, though not always very desirable (Marko dobos-2018)	Used in the treament of urinary diseases (Marko Dobos-2018)
187.	*Selaginella willdenowii* (Desv. Ex Poir.) Baker	Selaginellac eae		willdenowii leaf decoction is used to treat wounds high fever and backache, as well as being used as tonic medicine . In Brunei, it is used to treat gastric pains and infections of urinary tracts (Chai *et al.*,-2012)
188.	*Selenicereus undatus* (Haworth) D.R.Hunt	Cactaceae	It is used both as an ornamental vine and as a fruit crop - the pitahaya or dragon fruit. (Abhishek *et al.*,-2022)	
189.	*Solanum lycopersicum* L.	Solanaceae	The fruits are a popular source of vegetable. (Donald *et al.*,2022)	Tomatoes are the major dietary source of the antioxidant lycopene, which has been linked to many health benefits, including reduced risk of heart disease and cancer. (Donald *et al.*,-2022)
190.	*Solanum melongena* L.	Solanaceae	The fruits are a popular source of vegetable. (Donald *et al.*,2022)	Treatment of inflammatory condition, cardiac debility, neuralgia, ulcer in nose, and

				cholera. It also has analgesic, antipyretic, anticonvulsant, hypolipidemic activity, anti-inflammatory activity.The plant can also be used in bronchitis and asthma (Donald *et al.*,-2022)
191.	*Spathiphyllum floribundum* Schott	Araceae	Helps filter the indoor air, increase the levels of humidity, helping you breathe better. (RJ Henny-2019)	These plants is known to bring calmness by alleviating feelings of stress in the mind and body. it also aids in good sleep as it absorbs airborne mold spores that are common allergens. (RjHenny-2019)
192.	*Spathiphyllum wallisii* Schott	Araceae	Eliminates indoor air pollution, lowers stress, and promotes sound sleep, easy care and maintenance (RJ Henny-2019)	
193.	*Spathoglottis plicata*	Orchidaceae	Medicinal (In Malaysia (Moluccas), leaves are applied to painful joints as a poultice.) [Others]: It is commonly cultivated as an ornamental plant. (Priyadarshini *et al.*,-2021)	
194.	*Spathoglottis unguiculatea*	Orchidaceae	Easy to cultivate and sought after for their large colourful flowers, and are common in tropical gardens. (Priyadarshini *et al.*,-2021)	
195.	*Stachytarpheta jamaicensis*	Verbenacea		Demonstrate antacid, analgesic,anti-inflammatory, hypotensive, antihelminthic,

	(*L.) Vahl*	e		diuretic, laxative, lactagogue, purgative, sedative, spasmogenic, vasodilator, vulnerary, and vermifuge properties Used by the elderly as a cooling tonic for the stomach,The leaf extract of S. jamaicensis can also be applied externally to clean cuts, wounds, ulcers, and sores (Yoke *et al.*,-2016)
196.	*Styphnolobium japonicum* (*L.) Schott*	Leguminoceae	The flowers and leaves are sometimes used for tea. (Romana *et al.*,-2021)	treating dizziness, headache, hypertension, hematemesis, intestinal hemorrhage, and hemorrhoid. Extracts of different plant parts have also shown astringent, antibacterial, antispasmodic, hypotensive, anticholesterolemic, and anti-inflammatory properties. (Romana *et al.*,-2021)
197.	*Syngonium auritum* Schott.	Araceae	Cleanse the air you, breathe and act as anti-pollutants. These plants can reduce components of indoor air pollution, even volatile organic compounds such as benzene, formaldehyde, toluene, and xylene. (Romana *et al.*,-2021)	
198.	*Syngonium* podophyllum	Araceae	Cleanse the air you, breathe and act as anti-pollutants. These plants can reduce	

	Schott.		components of indoor air pollution, even volatile organic compounds such as benzene, formaldehyde, toluene, and xylene (Romana *et al.*,-2021)	
199.	*Syngonium wendlandii* Schott.	Araceae	Boosts Humidity and Reduces Dry Air. A Great CO2 Absorbing Plant. (Romana *et al.*,-2021)	
200.	*Syzygium Campanulatum* Gaertn[1]	Myrtaceae	Used in landscaping by making topiaries, edges, etc. (Abu *et al.*,-2013)	
201.	*Syzygium jambos* (*L.) Alston*	Myrtaceae	Rich in vitamin C, the fruit can be eaten raw or cooked[8] in various regional recipes. In South-East Asian countries, rose apple fruit is frequently served with spiced sugar Alleviate gastrointestinal disorders, wounds, syphilis, leprosy, as well as toothach. (Abu *et al.*,-2013)	alleviate gastrointestinal disorders, wounds, syphilis, leprosy, as well as toothache. used for treating general debility. fatigue. dyspepsia. fever. headache. mastitis. hypogalactia. cough. haemoptysis. oliguria, rheumatism and lumbago. They improve the resistance of the body to various noxious agents. (Abu *et al.*,-2013)
202.	*Tabernaemontana divaricata* R.Br. ex Roem. & Schult.	Apocynaceae		Anti-epileptic, anti-mania, brain tonic, and anti-oxidant. (Nipon *et al.*,-2008)
203.	*Tagetes erecta*	Compositae	Used as decorative plant	Used internally to treat indigestion, colic, severe constipation, dysentery, cough and

	L.		Used in various rituals and functions (Gopi *et al.*,-2012)	fever, and externally to treat sores, ulcers, eczema, sore eyes and rheumatism. (Gopi *et al.*,-2012)
204.	*Thuja occidentalis* L.	Cupressaceae	The foliage is used to decorate for making bouquets. (Belal *et al.*,-2005)	In folk medicine, *Thuja occ* has been used to treat bronchial catarrh, enuresis, cystitis, psoriasis, uterine carcinomas, amenorrhea and rheumatism. In combination with other immunomodulating plants, such as *Echinacea purpurea*, *Echinacea pallida* and *Baptisia tinctoria*, this medicinal plant is also used as evidence-based phytotherapy for acute and chronic infections of the upper respiratory tract, and as an adjuvant to antibiotics in severe bacterial infections such as bronchitis, angina, pharyngitis, otitis media and sinusitis. (Belal *et al.*,-2005)
205.	*Tradescantia spathacea* SW.	Commelinaceae		Research supports the traditional use of Boat Lily to treat cough, bronchitis and sprains. Other traditional uses include treating fever, amenorrhea, headache and rheumatism. (Sui *et al.*,-2015)
206.	*Tradescantia zebrina* Sw.	Commelinaceae		Anticancer, antioxidant, antibacterial, antitrypanosomal, antiarrythmic and larvicidal activity against Anopheles

				benarrochi (Sui *et al.*,-2015)
207.	*Trichilia dregeana Sond.*	Meliaceae		In Nigeria the leaves are used in the treatment of syphilis, and in Zimbabwe the bark is used as a purgative and as a fish poison state that throughout Africa the tree is used to treat a range of ailments including leprosy, sleeplessness, abdominal pains, dermatitis, haemorrhoids, jaundice and chest pain. The bark, whichh is very toxic, contains inhibitors of the prostaglandin-synthesis, which play a role in inflammation and pain suppression. The seed oil is rubbed into cuts made in the skin of a fractured limb in order to hasten healing. It is used as a massage oil to treat rheumatism and as a general body ointment. Used as a general tonic; to treat fever; and as a purgative. It is also used to induce labour in pregnant women; and to treat intestinal worms, colds and infertility. A decoction of the bark is drunk as a purgative or abortifacient, and also to treat dysentery and diarrhoea, fevers and lumbago.

				The bark is used externally as a treatment against scabies. Decoctions of the bark, applied in the form of an enema, are used as a purgative and abortifacient, as well as to treat back pain caused by kidney problems. (Song *et al.*,-2004)
208.	*Turnera ulmifolia L.*	Passiflorace ae		treat gastrointestinal problems (constipation, diarrhea), colds and flu, and circulatory problems (heart palpitations), infant care (gripe), ob/gyn issues (menstrual cramps), and dermatological issues (Silva *et al.*,-2006)
209.	*Typhonium roxburghi* Schott.	Araceae	Ornamental (Britto *et al.*,-2012)	
210.	*Veronica persica* Poir.	Medicinal	Ornamental (Milen *et al.*,-2018)	
211.	*Vitis vinifera* L.	Vitaceae	Used for preparing wine, and various food items (Sakariah *et al.*,-2021)	Grapevine leaf preparations can be used for relief of discomfort and heaviness of legs related to minor problems with blood circulation in the veins, for relief of itching and burning associated with haemorrhoids (Sakariah *et al.*,-2021)
212.	*Wrightia*	Apocynacea		Species antidysenterica means against

	antidysenterica (L.)R. Br.	e		dysentery and refers to the medicinal properties of the plant. Medicinal (It is a valuable medicinal plant in India. The juice from the bark is administered for mouth sores. The leaves are used in treating several skin disorders, such as psoriasis.) (Mary *et al.*,-2018)
213.	*Zamioculcas zamiifolia* (Lodd.) Engl.[1]	Araceae	A 2014 study from the Department of Plant and Environmental Science at the University of Copenhagen shows that, in a laboratory setting, the plant is able to remove volatile organic compounds in this order of effectiveness: benzene, toluene, ethylbenzene and xylene at a molar flux of around 0.01 mol/ (m^2 day). The same study stated that any effectiveness on indoor environments is inconclusive. (Rini *et al.*,-2018)	*Z. zamiifolia* is apparently used medicinally in the Mulanje District of Malawi and in the East Usambara mountains of Tanzania where juice from the leaves is used to treat earache. In Tanzania a poultice of bruised plant material from *Z. zamiifolia* is used as a treatment of the inflammatory condition known as "mshipa". (Rini *et al.*,-2018)
214.	*Zingiber officinale Roscoe*	Zingiberaceae		widely used in Chinese, Ayurvedic and Tibb-Unani herbal medicines all over the world, since antiquity, for a wide array of unrelated ailments that include arthritis, rheumatism, sprains, muscular aches, pains, sore throats, cramps, constipation, indigestion, vomiting, hypertension, dementia, fever, infectious diseases and

				helminthiasis. The main pharmacological actions of ginger and compounds isolated therefrom include immuno-modulatory, anti-tumorigenic, anti-inflammatory, anti-apoptotic, anti-hyperglycemic, anti-lipidemic and anti-emetic actions. (Anand *et al.*,-2016)

Comparison of dominant families

The dominant families in the study area showing maximum density are given in the figure 1. An analysis in the terms of number of species at family level indicates that Araceae (17 species) shows maximum diversity. It is followed by Araliaceae, Apocynaceae Leguminosae and Orchidaceae, 7 species each and, Arecacea and Euphorbiaceae 6 species each.

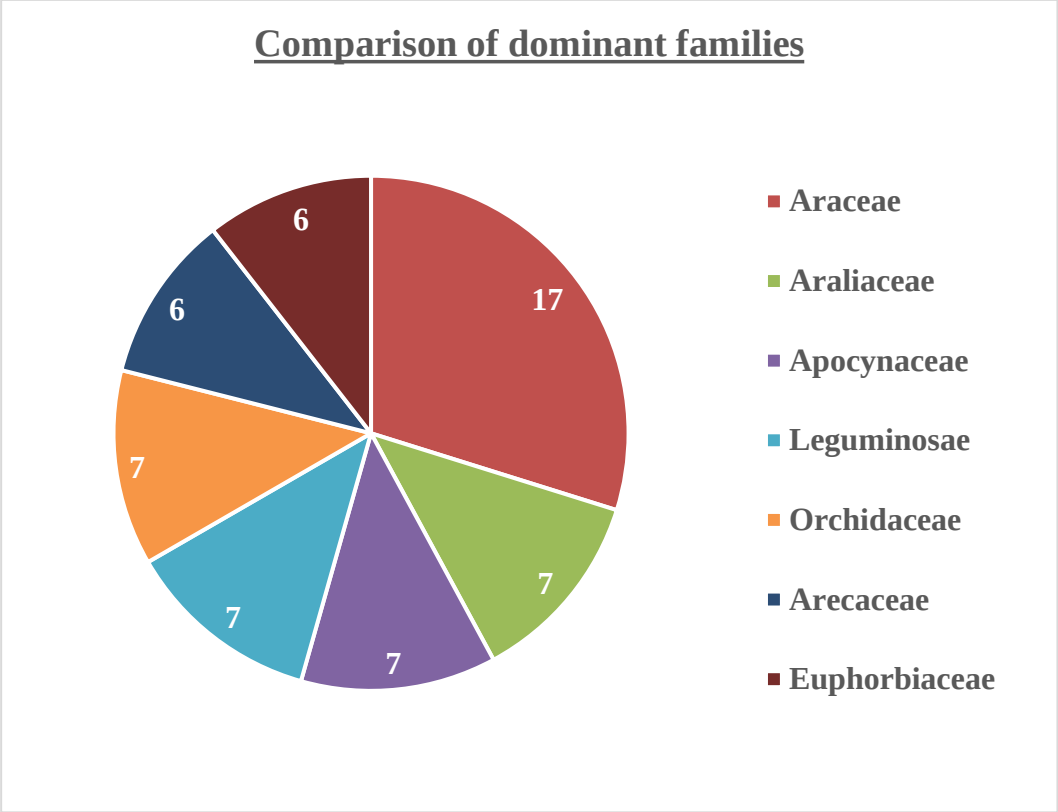

Figure 1. Comparison of dominant families

CHAPTER 5

DISCUSSION

5. DISCUSSION

The World Health Organization lists depression and mental health problems as the leading causes of disability globally (WHO, 2020). College students' mental health receives extensive attention from society. College students are expected to have the best mental health and happiness (Eisenberg *et al*., 2007). However, studies have shown that college students have a higher depression rate than the general population (Ibrahim *et al*., 2013). College students face various social, academic, interpersonal, and environmental pressures, and a lack of psychological recovery may lead to depression and mental disorders (Eisenberg *et al*., 2007; Dyson and Renk, 2006; Kelz *et al*., 2013; Liu *et al*., 2018). With the rapid development of Chinese higher education, Chinese college students face fierce competition and employment pressure, which triggers a series of mental health problems Hipp *et al*., 2016; Sohali, 2013). Scholars of many disciplines have studied the relationship between mental health and nature, such as environmental psychology, geography, urban planning, medicine, and landscape architecture (Bratman *et al*., 2012). There is also a correlation between green perception and mental health (Sugiyama *et al*., 2008; Triguero *et al*., 2015). There is a significant positive correlation between the quality of green spaces and better mental health (de Vries *et al*., 2013). The presence of greenery promotes psychological well-being and reduces depression and stress (Hartig *et al*., 1991; Ulrich *et al*., 1991). As an essential part of campus spaces, green spaces greatly affect students' physical and mental recovery. Campus green spaces can significantly improve students' mental health and reduce psychological pressure [5]. Numerous studies have demonstrated the importance of campus green spaces for students' mental health (Akpinar, 2016; Yuan, 2013). Campus green spaces provide students with a way to relieve frustration and reduce stress (Lau and Yang, 2009).

Studies have shown that outdoor campus green spaces are considered a potential recovery environment, which helps students' psychological recovery (Gulwadi *et al*., 2019; van den *et al*., 2020) and attention recovery (Lu and Fu, 2019). Green spaces may explain their influence on academic achievement and mental health through two existing theories in the current research background: Attention Recovery Theory (ART) (Kaplan and Berman, 2010) and Stress Recovery Theory (SRT) [14]. According to ART, students recover their ability to actively guide attention through contact with the

campus green space so as to restore their overall ability to learn and perform academic tasks (Hodson *et al*., 2017). Consequently, students' academic achievement is improved. SRT proposes that students can achieve the effect of relieving stress through biological reactions to specific attributes of the natural environment after contacting campus green spaces (Bowler *et al*., 2010). These two theories show that campus green spaces can influence college students' mental health positively. Students' success depends mainly on their academic achievement, so they have high expectations for their studies (Aghamolaei *et al*., 2014). More academic stress often leads to increased depression . Many studies have confirmed that mental health is strongly linked to academic achievement (DeSocio and Hootman, 2004; Lamb *et al*., 2003). Campus green spaces are an external factor that affects college students' academic achievement (Opie and Slater, 1988). According to studies, increasing campus green spaces can improve students' academic achievement (Fadilah and Amalia, 2021; Matsuoka, 2010). Social ecology emphasizes that the effect of the environment on human health is not independent, but is affected by some mediating effects. The effect of campus green spaces on college students' mental health is also not isolated and is jointly affected by multidimensional factors. For the special group of college students, academic achievement may be an important mediating variable between campus green spaces and the mental health of college students.

Medicinal Plants constitute an important component of the plant resource spectrum of Kerala. Recent analysis shows that out of estimated 4600 flowering plants in Kerala, about 900 possess medicinal values. Of these, 540 species are reported to occur in forest ecosystems. Over 150 species of plants that are either indigenous or naturalized in Kerala are used in the Indian system of Medicine like Ayurveda and Sidha. The rural folk and tribal communities make use of about 2,000 species of lesser-known wild plants for various medicinal uses. About 60 to 65% of plants required for Ayurvedic medicine and almost 80% of plants used in Sidha medicine are found in the forests of Kerala. Since the study area, St. Teresa's College campus is with ---- number of medicinal plants, the community in the campus is indirectly benefitted: reduced pollution, purified air, cool breeze and climate, shade, shelter, less disease-causing microbial interaction, good mental health, increased outdoor activities, interest created among students about plants, and much more.

When we analyze the plants in the campus, predominant of them are cultivated plants and only one fourth of the total plant population is wild or natural. This may be due to the fact that the location of the campus is at the centre of the city with less land area. Most of the floor of the campus has been tiled and hence the space for the wild plants to grow is really scarce. Department of Botany has a garden where fewer wild plants could be noticed. Though the situation prevails, it is appreciable that we could notice numerous valuable, medicinally important and economically useful plants were maintained.

During the survey it was noted that the dominant family identified was Leguminosae. The plants of the family is significant for its capability of fixing the atmospheric nitrogen in the soil. These plants thus helps in nourishing the soil which helps other plants and organisms to survive. Similarly, numerous plants are able to fix significant elements in them which indirectly nourishes the soil. The include elements such as potassium, calcium, nitrogen, manganese, phosphorous, gold, etc. (Balasubramanian, 2011).

The survey indicates that the St. Teresa's College campus is rich in its floristic diversity with a total of 215 plant species. The diversity clearly implies that the campus is provided with varied climatic conditions, thus the presence of wide range of species. These plants comfort the people through shade, shelter, medicinal, economic and provides a better mental health in the campus. Most plants possess medicinal qualities and serves as a source for the research. From the previous reports its evident that new plant species were introduced which adds the floristic richness to the campus.

CHAPTER 5

SUMMARY AND CONCLUSION

5. SUMMARY AND CONCLUSION

The floristic survey was conducted in St. Teresa's College, Autonomous, Ernakulam. The aim of the project was to identify and document all the plant species present in the college. We began with the project in the month of November 2022. Within one month we have captured the geo tagged photographs of all plants grown in the college. The College is located in a developing city, as a result the rate of pollution is tremendously higher, even though more than 214 types of plants are still growing in the college. During the survey about more than 214 species were photographed from all the three division of the campus. The name and hierarchial details of all plants were collected with the help of books, journals, etc. The medicinal and economic uses of each plant were included in the documentation. They included vegetables, flowering plants, trees, ornamental herbs and shrubs, grasses etc. The study recorded 163 medicinally important plants such as, *Citrus limon, Scoparia dulsis, Leucas aspera, Euphorbia hirta* and many more were documented. The plants predominantly were dicots. In total, we found 82 families, 153 genera, and 215 species.

The survey concluded that, in between the adversely changing environmental and climatic factors; because of the eco-friendly activities and many conservations programs the college is still have its own species richness. This project strongly increased the students' knowledge of local plants. The St. Teresa's College campus, with its diversity of native plant species and the beautiful, cultivated ornamental plants, provides a unique opportunity for learning as an outdoor classroom exercise.

The study shows that St. Teresa's College has paid great care in the nurturing of great diversity of plants. The college is a house for many plant varieties and species. This concludes that St. Teresa's College, Ernakulam is an eco-friendly campus. The varied plants in the campus not only provides benefits to the environment but also a positive vibe for the students who come to study in this college. They get their energy and enthusiasm by the serene environment the plants in the campus have put forward.

REFERENCES

REFERENCES

A Jerry.2018. Comprehensive review on the medicinal properties of Borassus flabellifer. Journal of Academia and Industrial Research 7 (7), 93-97

AA Daagema, PN Orafa, FZ Igbua. 2020. Nutritional potentials and uses of pawpaw (Carica papaya): A review. Eur. J. Nutr. Food Saf, 52-66.

Aarti V Pawar, Suresh G Killedar. 2017. Uses of Cassia fistula Linn as a medicinal plant. International Journal for Advance Research and Development 2 (3).

Abd El-Kafie, M Omaima, HY El-Banna, AA Elsharqawi. 2018. Effects of plant growth regulators on frequency shoot multiplication of an important ornamental and medicinal plant, snowbush (Breynia disticha). Journal of Plant Production 9 (6), 515-520

Abdalrahim FA Aisha, Zhari Ismail, Khalid M Abu-Salah, Jamshed M Siddiqui, Gheniya Ghafar, Amin Malik Shah Abdul Majid. Syzygium campanulatum korth methanolic extract inhibits angiogenesis and tumor growth in nude mice. BMC Complementary and Alternative Medicine 13 (1), 1-11, 2013

Abhishek Yekkaladev, Koppala RVS Chaitanya. Overview Discussion on Various Pharmacological Effects of Selenicereus undatus Plant Parts and Precise Focus on Hepatic Disorders and Treatment Options: A Concise Review. Systematic Reviews in Pharmacy 13 (10), 678-684, 2022

Abolfazl Shakeri, Amirhossein Sahebkar, Behjat Javadi. Melissa officinalis L.–A review of its traditional uses, phytochemistry and pharmacology. Journal of ethnopharmacology 188, 204-228, 2016

ACR Pinto, Simone da Costa Mello, GM Geerdink, Keigo Minami, RF Oliveira, JC Barbosa. 2007. Benzyladenine and gibberellic acid pulse on postharvest of Calathea louisae cut foliage. International Conference on Quality Management in Supply Chains of Ornamentals 755, 397-402

Agarwal N. K(2015) Biodiversity, Concept, Threats and conservation. https://doi.org/10.36953/ECJ.2015.16303

Ali Esmail Al-Snafi. 2015. Bioactive components and pharmacological effects of Canna indica-An Overview. International Journal of Pharmacology and toxicology 5 (2), 71-75

Alison A. Ormsby . 2011. The Impacts of Global and National Policy on the Management and Conservation of Sacred Groves of India. 39: 783-793

Amir Hossain, Akbar Hossain, Sultana Juhara Mannan. Evaluation of antioxidant and analgesic activities of three medicinal plants. Pharmacognosy Research 11 (3), 2019

Amir Modarresi Chahardehi, Darah Ibrahim and Shaida Fariza Sulaiman. Antioxidant, Antimicrobial Activity and Toxicity Test of Pilea microphylla. Industrial Biotechnology Research Laboratory, School of Biological Sciences, University Sains Malaysia, Penang, 11800 Minden, Malaysia.

Anisa Ghogar, Wannee Jiraungkoorskul. 2017. Antifertility effect of Bougainvillea spectabilis or paper flower. Pharmacognosy reviews 11 (21), 19

Anju Meshram, Nidhi Srivastava (2015). Epipremnum Aureum (Jade Pothos): A Multipurpose Plant With Its Medicinal And Pharmacological Properties. Journal Of Critical Reviews. Vol : 2 Issue :2, 21,22,23.

Belal Naser, Cornelia Bodinet, Martin Tegtmeier, Ulrike Lindequist. Thuja occidentalis (Arbor vitae): a review of its pharmaceutical, pharmacological and clinical properties. Evidence-based complementary and alternative medicine 2 (1), 69-78, 2005

Botanical Survey of Diego Garcia. Phenolic Antioxidants (Hydrolyzable Tannins, Flavonols, and Anthocyanins) Identified by LC-ESI-MS and MALDI-QIT-TOF MS from *Rosa chinensis* Flowers. 1996

BS Nayak, B Vinutha, B Geetha, B Sudha. Experimental evaluation of Pentas lanceolata flowers for wound healing activity in rats. Fitoterapia 76 (7-8), 671-675, 2005

C Palma-Silva, MM Cavallari, T Barbará, C Lexer, MA Gimenes, F Bered, MH Bodanese-Zanettini . 2007. A set of polymorphic microsatellite loci for Vriesea gigantea and Alcantarea imperialis (Bromeliaceae) and cross-amplification in other bromeliad species. Molecular Ecology Notes 7 (4), 654-657

CA Madera-Parra, EJ Peña-Salamanca, MR Peña, DPL Rousseau, PNL Lens. Phytoremediation of Landfill Leachate with Colocasia esculenta, Gynerum sagittatum and Heliconia psittacorum in Constructed Wetlands. International journal of phytoremediation 17 (1), 16-24, 2015

CJ Lin, TT Chang, MY Juan and TT Lin. Journal of Tropical Forest Science Vol. 23, No. 3 (July 2011), pp. 260-270

Combretum woodii (Combretaceae) leaf extracts have high activity against Gram-negative and Gram-positive bacteria. JN Eloff, JO Famakin, DRP Katerere. African Journal of Biotechnology 4 (10), 2005

Dayar Arbain, Lorenskia Maria Regina Sinaga, Muhammad Taher, Deny Susanti, Zainul Amiruddin Zakaria, Junaidi Khotib. 2022. Traditional Uses, Phytochemistry and Biological Activities of Alocasia Species: A Systematic Review. Frontiers in Pharmacology 13.

Debjyoti Bhattacharyya. Rhododendron Species and Their Uses with Special Reference to Himalayas – A Review. Assam University Journal of Science & Technology Vol. 7 Number I 161-167, 2011

Dipak Paul, Karabi Biswas, Sankar Narayan Sinha. 2015. Biological activities of Adenium obesum (Forssk.) Roem. & Schult.: a concise review. Malaya Journal of Biosciences 2 (4), 214-221

Donald G Barceloux. *Potatoes, tomatoes, and solanine toxicity (Solanum tuberosum L., Solanum lycopersicum L.)* Disease-a-month 55 (6), 391-402, 2009.

DR Rashmi, N Raghu, TS Gopenath, P Palanisamy, P Bakthavatchalam, M Karthikeyan, A Gnanasekaran, MS Ranjith, GK Chandrashekrappa, KM Basalingappa Journal of Medicinal Plants Studies 6 (4), 156-161, 2018

Dr. Lizzy Mathew and Haritha. Campus Flora. Department of Botany, St. Teresa's College, Ernakulam.

Duygu Seda Savas, Hakan Sevik, Kaan Isinkaralar, Aydin Turkyilmaz, Mehmet Cetin. 2021. The potential of using Cedrus atlantica as a biomonitor in the concentrations of Cr and Mn. Environmental Science and Pollution Research 28 (39), 55446-55453.

Earnest Oghenesuvwe Erhirhie, Chika Ndubuisi Emeghebo, Emmanuel, Emeka Ilodigwe, Daniel Lotanna Ajaghaku, Blessing Ogechukwu, Umeokoli, Peter Maduabuchi Eze, Kenneth Gerald Ngwoke and Festus, Basden Gerald Chiedu Okoye (2019 Jul-Aug). Dryopteris filix- mas (L.) Schott ethanolic leaf extract and

fractions exhibited profound anti-inflammatory activity. Avicenna J Phytomed. 9(4):396-409. PMCID: PMC6612247.

Edward E Terrell, Harold Robinson. Survey of Asian and Pacific species of Hedyotis and Exallage (Rubiaceae) with nomenclatural notes on Hedyotis types. Taxon 52 (4), 775-782, 2003

Edward F Gilman. 1999. Asparagus densiflorus Myers 1. University of Florida Cooperative Extension Service Fact Sheet FPS-52

Emmanuel Mfotie Njoya, Paul Moundipa Fewou, Timo HJ Niedermeyer. 2021. Codiaeum variegatum (L.) Rumph. Ex A. Juss.(Euphorbiaceae): An overview of its botanical diversity, traditional uses, phytochemistry, pharmacological effects and perspectives …Journal of Ethnopharmacology 277, 114244.

Eric Wei Chiang Chan, Siu Kuin Wong, Hung Tuck Chan. 2017. Alpinia zerumbet, a ginger plant with a multitude of medicinal properties: An update on its research findings. J. Chin. Pharm. Sci 26, 775-788

Fatima Ramdan Muhamed Al Kawan, Bagyo Yanuwiadi, Zaenal Fanani. The Attractivity of Ornamental Plants to Some Natural Enemies of Pest. Indonesian Journal of Environment and Sustainable Development 9 (1), 2018

G Gopi, A Elumalai, P Jayasri. Concise review on Tagetes erecta. International Journal of Phytopharmacy Research 3 (1), 16-19, 2012

Ganiyat Kehinde Oloyede, Olukoyejo E Ayanbadejo. Phytochemical, toxicity, antimicrobial and antioxidant screening of extracts obtained from Laportea aestuans (Gaud). J Med Sci 14 (51), e59, 2014

GEM Wimalasiri, P Ranasinghe, DMA Gunaratne, LP Vidhana Arachchi. 2016. Antioxidant and anti-diabetic properties of Caryota urens (Kithul) flour. Procedia food science 6, 181-185.

GM Masud Parvez. Pharmacological activities of mango (Mangifera indica): A review. Journal of Pharmacognosy and phytochemistry 5 (3), 01-07, 2016

Gohshmin (2022). Study On The Thermal Performance Of Philodendron Species For Vertical Greenery System (Vgs) In Tropical Outdoors: Epiphytic Plant Selection.

Guddadarangavvanahally K Jayaprakasha, RP Singh, KK Sakariah. Antioxidant activity of grape seed (Vitis vinifera) extracts on peroxidation models in vitro. Food chemistry 73 (3), 285-290, 2001

Huili Yan, Yiwei Gao, Lulu Wu, Luyao Wang, Tian Zhang, Changhua Dai, Wenxiu Xu , Lu Feng, Mi Ma, Yong-Guan Zhu, Zhenyan He. Water-use efficiency in cork oak (Quercus suber) is modified by the interaction of water and light availabilities. 2019.

Ismael Aranda, Marta Pardos, Jaime Puértolas, Maria Dolores Jiménez, Jose Alberto Pardos. Tree Physiology, Volume 27, Issue 5, May 2007, Pages 671–677,

Iswar Hazarika, Geetha K Mukundan, P Sivakami Sundari, Damiki Laloo. Journey of Hydrocotyle sibthorpioides Lam.: From traditional utilization to modern therapeutics—A review. Phytotherapy Research 35 (4), 1847-1871, 2021

J Carr, SS Korban. Evaluating genetic relationships in seed impatiens, Impatiens walleriana, using AFLP profiling. Plant breeding 123 (6), 577-581, 2004

J. C. Callaway,Glacus S. Brito &Edison S. Neves. Phytochemical Analyses of Banisteriopsis Caapi and Psychotria Viridis. Potential use of the *Pteris vittata* arsenic hyperaccumulation-regulation network for phytoremediation. 2011.

Jaime A Teixeira da Silva, Judit Dobránszki, Budi Winarto, Songjun Zeng. 2015. Anthurium in vitro: a review. Scientia Horticulturae 186, 266-298

Janet JY Tan, Joash BL Tan, SM Lee, YY Lim. Antioxidant and Antimicrobial Potential of Costus Woodsonii. Journal of Herbs, Spices & Medicinal Plants 26 (2), 191-202, 2020

Janet O Alegbejo. 2013. Nutritional value and utilization of Amaranthus (Amaranthus spp.)–a review. Bayero Journal of Pure and Applied Sciences 6 (1), 136-143

Jay Ram Patel a, Priyanka Tripathi b 1, Vikas Sharma a, Nagendra Singh Chauhan a, Vinod Kumar Dixit a. Phyllanthus amarus: Ethnomedicinal uses, phytochemistry and pharmacology: A review. Shri Ramnath Singh Mahavidyalaya (Pharmacy), Gormi, Bhind 477660, M.P., India. 2011.

Jee Yeon Lee, Jung Yeop Lee, Bong-Sik Yun, Byung Kook Hwang . 2004. Antifungal Activity of β-Asarone from Rhizomes of Acorus gramineus. Journal of agricultural and food chemistry 52 (4), 776-780.

Ji Li, Kunlin Wu, Lin Li, Guohua Ma, Lin Fang, Songjun Zeng . 2023. Transcriptomic analysis reveals biosynthesis genes and transcription factors related to leaf anthocyanin biosynthesis in Aglaonema commutatum. BMC genomics 24 (1), 1-16

Jiao Wu, Chuang Cui, He Zhang, Dongjun Liu, Lukas Schreiber, Weiquan Qin, Yinglang Wan. 2021. Identifying new compounds with potential pharmaceutical and physiological activity in Areca catechu and Areca triandra via a non-targeted metabolomic approach. Phytochemical Analysis 32 (6), 970-981.

Jinliang Liu a b c 1, Vu Ngoc Ha a 1, Zhen Shen b, Hailan Zhu b, Fei Zhao d, Zhong Zhao. Characteristics of bulk and rhizosphere soil microbial community in an ancient Platycladus orientalis forest. 2018.

Joash Ban Lee Tan, Yau Yan Lim, Sui Mae Lee. Antioxidant and antibacterial activity of Rhoeo spathacea (Swartz) Stearn leaves. Journal of Food Science and Technology 52, 2394-2400, 2015

Johann Jakob Schneller. 1979. Biosystematic investigations on the lady fern(Athyrium filix-femina)

Kamlesh Sapiens and Dinesh Mehra. 2020. Floristic Study of New Campus-The Homestead of Herbs, Jai Narain Vyas University, Jodhpur.International Journal of Scientific Research in Science and Technology. 7: 30-42

Katarzyna J. Chwedorzewska. Poa annua L. in Antarctic: searching for the source of introduction. Polar Biology volume 31, pages263–268 (2008).

Kathleen M Pryer, Christopher H Haufler. Isozymic and chromosomal evidence for the allotetraploid origin of Gymnocarpium dryopteris (Dryopteridaceae). Systematic Botany, 150-172, 1993

Ken Shannik. Companion Plants: Fargesia murielae: The Umbrella Bamboo. Digital Library and Archives of the Virginia Tech University Libraries, 2003

Kenya M.L. Khalumba, P.K.Mbugua1 & J.B.Kung'u. Uses And Conservation Of some highland species of the genus Sansevieria Thunb in African Crop Science Conference Proceedings, Vol. 7. pp. 527-532

KM Sakthivel, C Guruvayoorappan. 2012. Biophytum sensitivum: Ancient medicine, modern targets. Journal of advanced pharmaceutical technology & research 3 (2), 83

Kok Kwan Tan. 2015. In vitro pharmacological properties of an indigenous medicinal plant, Artabotrys crassifolius Hook. F. & Thomson (Family: Annonaceae Juss.) University of Nottingham

Lex AJ Thomson, Lois Englberger, Luigi Guarino, RR Thaman, Craig R Elevitch. Pandanus tectorius (pandanus). Species profiles for Pacific Island agroforestry, 28, 2006

Ludmiła Polechońska, Agnieszka Klink & Małgorzata Dambiec. Trace element accumulation in *Salvinia natans* from areas of various land use types**.** *Environmental Science and Pollution Research* volume 26, pages30242–30251**. 2019.**

M Hernández Suárez, EM Rodríguez Rodríguez, C Díaz Romero. Chemical composition of tomato (Lycopersicon esculentum) from Tenerife, the Canary Islands. Food chemistry 106 (3), 1046-1056, 2008.

M Manokari, S Priyadharshini, Mahipal S Shekhawat. Direct somatic embryogenesis using leaf explants and short-term storage of synseeds in Spathoglottis plicata Blume. Plant Cell, Tissue and Organ Culture (PCTOC) 145 (2), 321-331, 2021.

MA Nascimento, AK Silva, LCB França, ELJ Quignard, JA López, MG Almeida. Turnera ulmifolia L.(Turneraceae): Preliminary study of its antioxidant activity. Bioresource Technology 97 (12), 1387-1391, 2006

Madeleine Ernst, Olwen M Grace, C Haris Saslis-Lagoudakis, Niclas Nilsson, Henrik Toft Simonsen, Nina Rønsted. Global medicinal uses of Euphorbia L.(Euphorbiaceae). Journal of ethnopharmacology 176, 90-101, 2015

Mai M El-Ghonemy, Walaa A El-Kashak 1 , Tahia K Mohamed 1 , Enayat A Omara, Jihan Hussein 3 , Abdel-Razik H Farrag 2 , Mahmoud I Nassar , Mohamed Y El-Kady. 2019. Hepatoprotective activity of Dypsis lutescens against D- galactosamine-induced hepatotoxicity in rats and its

phytoconstituents. DOI: 10.4103/2221-1691.270979. Asian Pacific Journal of Tropical Biomedecine. Volume : 9 | Issue : 11 | Page : 467-473

Manisha J Oza, Yogesh A Kulkarni Traditional uses, phytochemistry and pharmacology of the medicinal species of the genus Cordia (Boraginaceae). Journal of Pharmacy and Pharmacology 69 (7), 755-789, 2017

Manjeshwar Shrinath Baliga, Poruthukaran John Kurian. Ixora coccinea Linn.: Traditional uses, phytochemistry and pharmacology. Chinese journal of integrative medicine 18, 72-79, 2012.

Marko Doboš. Contribution to the knowledge on the distribution of Sedum cepaea L. in Croatia. Glasnik Hrvatskog botaničkog društva 6 (1), 20-26, 2018

Marta Klimek-Szczykutowicz, Agnieszka Szopa, Halina Ekiert. 2020. Citrus limon (Lemon) Phenomenon—A Review of the Chemistry, Pharmacological Properties, Applications in the Modern Pharmaceutical, Food, and Cosmetics …Plants 9 (1), 119.

Mathew K M. 1982. Illustrations on the Flora of Tamilnadu Carnatic. 1982. Rapient Herbarium, Tirudhirapalli

MH Malakyan, AS Karapetyan, S Kh Mairapetyan. 2015. Radioprotective Activity Of Callisia Fragrans Grown In Soilless (Hydroponics) And Soil Culture Conditions. Electronic Journal of Natural Sciences 25 (2)

MM Airaksinen, P Peura, Liisa Ala-Fossi-Salokangas, Seija Antere, J Lukkarinen, M Saikkonen, F Stenbäck. 1986. Toxicity of plant material used as emergency food during famines in Finland. Journal of ethnopharmacology 18 (3), 273-296

Mona E El-Tantawy, Manal M Shams, Manal S Afifi. Chemical composition and biological evaluation of the volatile constituents from the aerial parts of Nephrolepis exaltata (L.) and Nephrolepis cordifolia (L.) C. Presl. Natural product research 30 (10), 1197-1201, 2016

Mooney H A (2001). Biodiversity on land and in the Sea

Muhabat Shah, Abdul Mateen Khattak, NU Amin. Effect of different growing media on the rooting of Ficus binnendijkii'Amstel Queen'cuttings. Journal of agricultural and biological science, 2006

Muhammad Azim Khan, Khan Bahadar Marwat, Bakhtiar Gul, Fazli Wahid, Haroon Khan, And Saima Hashim. Pistia Stratiotes L. (Araceae): Phytochemistry, Use In Medicines, Phytoremediation, Biogas And Management Options. Pak. J. Bot., 46(3): 851-860, 2014.

Nainwal, Pankaj. Review on Philodendron Species-Plant Seeking For Validation of Its Therapeutic Approaches. Journal of Pharmaceutical Sciences and Research; Cuddalore Vol. 11, Iss. 5, 2019: 2003-2006.

Nair Silva Macêdo, Zildene de Sousa Silveira, Antonio Henrique Bezerra, José Galberto Martins da Costa, Henrique Douglas Melo Coutinho, Barbara Romano, Raffaele Capasso, Francisco Assis Bezerra da Cunha, Márcia Vanusa da Silva. 2020. Caesalpinia ferrea C. Mart. (Fabaceae) Phytochemistry, Ethnobotany, and Bioactivities: A Review. Molecules 25 (17), 3831

Narinder Singh, Amandeep Singh, Dilrose Pabla. 2019. Review on medicinal uses of Bauhinia Variegata Linn. PharmaTutor 7 (6), 12-17

Om Prakash, Rajesh Kumar, Anurag Mishra, Rajiv Gupta. 2009. Artocarpus heterophyllus (Jackfruit): an overview. Pharmacognosy Reviews 3 (6), 353

Ondulla T Toomer. 2020. Comprehensive review of the value-added uses of peanut (Arachis hypogaea) skins and by-products. Critical reviews in food science and nutrition 60 (2), 341-350

P Daniel. 2005. Flora of Kerala. Botanical Survey of India.

P Manimaran, P Senthamaraikannan, MR Sanjay, MK Marichelvam, Mohammad Jawaid. Study on characterization of Furcraea foetida new natural fiber as composite reinforcement for lightweight applications. Carbohydrate polymers 181, 650-658, 2018

P. Pradhan, L. Joseph, V. Gupta1, R. Chulet1, H. Arya2, R. Verma 2, A. Bajpai 3. Saraca asoca (Ashoka): A Review.

PAGN Prakash, Neelu Gupta. Therapeutic uses of Ocimum sanctum Linn (Tulsi) with a note on eugenol and its pharmacological actions: a short review. Indian journal of physiology and pharmacology 49 (2), 125, 2005

Pankaj K Sahu, Deen Dayal Giri, Ritu Singh, Priyanka Pandey, Sharmistha Gupta, Atul Kumar Shrivastava, Ajay Kumar, Kapil Dev Pandey. 2013.Therapeutic and Medicinal Uses of Aloe vera: A Review. Pharmacology & Pharmacy 4 (08), 599

PAS Selvakumari, AJ de Britto. Bioassay-guided identification of chemical components in Typhonium roxburghii Schott. Malaysian Journal of Science 31 (1), 8-15, 2012

Patricia Mae V Diaz, Danica Anne C Estropia, Mary Jane A Lumanlan, Carolina R Tamayo, Ernest S Cajucom Jr. Antimicrobial Property of Extracted Wrightia Antidysenterica (White Angel) Bark against Salmonella Typhimurium (Salmonella) Bacteria. Ascendens Asia Journal of Multidisciplinary Research Abstracts 2 (5), 2018

Paul D Johnson. Acerola (Malpighia glabra L., M. punicifolia L., M. emarginata DC): agriculture, production and nutrition. Plants in Human Health and Nutrition Policy 91, 67-75, 2003

Pawadee Noiarsa, Somsak Ruchirawat, Hideaki Otsuka, Tripetch Kanchanapoom. Chemical constituents from Oldenlandia corymbosa L. of Thai origin. Journal of natural medicines 62, 249-250, 2008

Pearl Majorie Liew, Yoke Keong Yong. Stachytarpheta jamaicensis (L.) Vahl: from traditional usage to pharmacological evidence. Evidence-based complementary and alternative medicine 2016, 2016

Phanukit Kunhachan, Chuleratana Banchonglikitkul, Tanwarat Kajsongkram, Amonrat Khayungarnnawee, Wichet Leelamanit. Chemical composition, toxicity and vasodilatation effect of the flowers extract of Jasminum sambac (L.) Ait.“G. Duke of Tuscany”. Evidence-Based Complementary and Alternative Medicine 2012, 2012

Plant Systematics and Evolution 132, 255-277

Pooja Pachurekar, AK Dixit. A review on pharmacognostical phytochemical and ethnomedicinal properties of Hedychium coronarium J. Koenig an endangered medicine. International Journal of Chinese Medicine 1 (2), 49-61, 2017

Poole, R. T. ; Henley, R. W. Fertilization and water use of Dieffenbachia maculata and Peperomia obtusifolia. Proceedings of the Florida State Horticultural Society 1980 Vol.93 pp.162-164 Florida University, IFAS, Apopka, FL 32703, USA.

Qiao Liu, Jin-Jian Lu, Hui-Jie Hong, Qi Yang, Yitao Wang, Xiao-Jia Chen. Ophiopogon japonicus and its active compounds: A review of potential anticancer effects and underlying mechanisms. Phytomedicine, 154718, 2023

R Ansari, K Ekhlasi-Kazaj. 20112. Adiantum capillus-veneris. L: phytochemical constituents, traditional uses and pharmacological properties: a review. Journal of Advanced Scientific Research 3 (04), 15-20

R Haque, S Saha, T Bera. 2011. Peer reviewed of general literature on Chlorophytum borivilianum commercial medicinal plant. Int J Drug Dev Res 3 (1), 165-177.

R Naveen Prasad, S Viswanathan, J Renuka Devi, Vijayashree Nayak, VC Swetha, BR Archana, N Parathasarathy, Johanna Rajkumar. 2008. Preliminary phytochemical screening and antimicrobial activity of Samanea saman. Journal of Medicinal Plants Research 2 (10), 268-270, 2008

Radu Claudiu Fierascu, Milen I Georgiev, Irina Fierascu, Camelia Ungureanu, Sorin Marius Avramescu, Alina Ortan, Mihaela Ioana Georgescu, Anca Nicoleta Sutan, Anca Zanfirescu, Cristina Elena Dinu-Pirvu, Bruno Stefan Velescu, Valentina Anuta. Mitodepressive, antioxidant, antifungal and anti-inflammatory effects of wild-growing Romanian native Arctium lappa L.(Asteraceae) and Veronica persica Poiret (Plantaginaceae). Food and Chemical Toxicology 111, 44-52, 2018.

Rajsekhar Saha. 2011. Pharmacognosy and pharmacology of Annona squamosal. Int. J. Pharm. Life Sci 2, 1183-1189

Ravindra G Mali, Raju R Wadekar. 2008. Baliospermum montanum (Danti): Ethnobotany, phytochemistry and pharmacology-A review. International Journal of Green Pharmacy (IJGP) 2 (4)

Razak Wahab, Mohd Tamizi Mustapa, Othman Sulaiman, Aminuddin Mohamed, Affendy Hassan, Izyan Khalid. 2010. Anatomical and physical properties of cultivated two-and four-year-old Bambusa vulgaris. Sains Malaysiana 39 (4), 571-579

Rice, J.S. 2012. The Neurobiology Of People-Plant Relationships: An Evolutionary Brain Inquiry. Acta Hort. (ISHS) 954:21-28

RJ Henny. Spathiphyllum. CRC Handbook of flowering, 382-383, 2019.

RK Maiti, VP Singh. 2021. A review on recent research in okra (Abelmoschus esculentus L.).Farming and Management 6 (2), 77-107.

Romana Naaz, Vasi Uddin Siddiqui, Sami Ullah Qadir, Weqar Ahmad Siddiqi. Green synthesis of silver nanoparticles using syngonium podophyllum leaf extract and its antibacterial activity. Materials Today: Proceedings 46, 2352-2358, 2021

Sala *et al*. 2000. Biodiversity – Global Biodiversity Scenarios for the year 2100.

Sangeeta Rajbhandary. 2013. Traditional uses of Begonia species (Begoniacae) in Nepal. Journal of Natural History Museum 27, 25-34

Sanjeeb Kalita, Gaurav Kumar, Loganathan Karthik, Kokati Venkata Bhaskara Rao. Review on Medicinal Properties of Lantana camara Linn. Research Journal of Pharmacy and Technology 5 (6), 711-715, 2012

Sasidharan, N. 2004. Biodiversity Documentation for Kerala Part 6: Flowering Plants. Kerala Forest Research Institute, Peechi.

Shanzay Ahmed, Peter John, Rehan Zafar Parach , Attya Bhatti and Monica Gumav (2022). Docking and. Molecular Dynamics Study to Identify Novel Phytobiologics from Dracaena trifasciata against Metabolic. Reprogramming in Rheumatoid Arthritis. Life 2022. 12, 1148 14/17

Shradha Bisht, SS Sisodia. 2010. Coffea arabica: A wonder gift to medical science. Journal of Natural Pharmaceuticals 1 (1), 58-65.

Siu Kuin Wong, Yau Yan Lim, Eric WC Chan. Botany, uses, phytochemistry and pharmacology of selected Apocynaceae species: A review. Pharmacognosy Communications 3 (3), 2013

SM Rahman, Md Atikullah, Md Islam, Md Mohaimenul, Foysal Ahammad, Bisti Saha, Md Rahman. Anti-inflammatory, antinociceptive and antidiarrhoeal activities of methanol and ethyl acetate extract of Hemigraphis alternata leaves in mice. Clinical phytoscience 5 (1), 1-13, 2019

Sobia Tabassum,Saeed Ahmad,Kashif ur Rehman Khan,Fouzia Tabassum, Anjum Khursheed, Qamar uz Zaman, Najat A. Bukhari, Alanoud Alfagham, Ashraf A. Hatamleh andYinglong Chen. Phytochemical Profiling, Antioxidant, Anti-

Inflammatory, Thrombolytic, Hemolytic Activity In Vitro and In Silico Potential of Portulacaria afra. Molecules 2022.

Song-Quan Song, Patricia Berjak, Norman Pammenter. Desiccation sensitivity of Trichilia dregeana axes and antioxidant role of ascorbic acid. Acta Botanica Sinica-English Edition- 46 (7), 803-810, 2004

Sreeja K, Unni P N 2016, Floristic diversity of Vallikkaattu Kaavu, A sacred groove of Kozhikode, Kerala, India https://academicjournals.org/journal/JENE/article-full-text-pdf/...

Sri Hartati, Nandariyah Nandariyah, Ahmad Yunus, Djati W Djoar. 2017. Cytological studies on black orchid hybrid (Coelogyne pandurata Lindley). Biodiversitas Journal of Biological Diversity 18 (2), 555-559, 2017

Subash Kumar Gupta, Anand Sharma. Medicinal properties of Zingiber officinale Roscoe-A review. J. Pharm. Biol. Sci 9, 124-129, 2014

Sulaimani. Ethnomedicinal, Phytochemical and Pharmacological Investigations of *Perilla frutescens* (L.) Britt. Sulaimani Polytechnic University, Slemani 46001, Kurdistan Regional Government, Iraq. *Molecules* 2019, *24*(1), 102; https://doi.org/10.3390/molecules24010102

T P Sreedharan 2004. Biological diversity of Kerala: A Survey of Kalliasseri Panchayat, Kannur district

T Pullaiah. 2022. Botany of Coleus forskohlii. Forskolin: Natural Sources, Pharmacology and Biotechnology, 5-12.

Tamanna Arif. Therapeutic potential and traditional uses of Sauropus androgynous: a review. Journal of Pharmacognosy and Phytochemistry 9 (3), 2131-2137, 2020

Thomas M Walter, S Merish, M Tamizhamuthu. 2014. Review of Alternanthera sessilis with reference to traditional Siddha medicine. International Journal of Pharmacognosy and Phytochemical Research 6 (2), 249-254

TK Lim, TK Lim Edible Medicinal and Non Medicinal Plants: Volume 9, Modified Stems, Roots, Bulbs, Cordyline fruticose. 627-632, 2015

Tsun-Thai Chai, Fai-Chu Wong. Antioxidant properties of aqueous extracts of Selaginella willdenowii. Journal of Medicinal Plants Research 6 (7), 1289-1296, 2012

V Prabhadevi, S Sathish Sahaya, M Johnson, B Venkatramani, N Janakiraman. 2012. Phytochemical studies on Allamanda cathartica L. using GC–MS. Asian Pacific Journal of Tropical Biomedicine 2 (2), S550-S554

Vandana Dwivedi, Shalini Tripathi. Review study on potential activity of Piper betle. Journal of Pharmacognosy and Phytochemistry. Vol. 3, Issue 4 (2014)

Vanessa B Beauchamp, Stephanie M Koontz. An introduction to Oplismenus undulatifolius (Ard.) Roem. & Schult.(wavyleaf basketgrass), a recent invader in Mid-Atlantic forest understories. The Journal of the Torrey Botanical Society 140 (4), 391-413, 2013

Varinder Singh, Gargi Chauhan, Pawan Krishan, Richa Shri. 2018. Allium schoenoprasum L.: a review of phytochemistry, pharmacology and future directions. Natural product research 32 (18), 2202-2216.

Venugopalan Santhosh Kumar, Visweswaran Navaratnam. 2013. Neem (Azadirachta indica): Prehistory to contemporary medicinal uses to humankind. Asian Pacific journal of tropical biomedicine 3 (7), 505-514

Víctor García-Gaytán, Fernando Carlos Gómez-Merino, Libia I Trejo-Téllez, Gustavo Adolfo Baca-Castillo, Soledad García-Morales. 2017. The chilhuacle chili (Capsicum annuum L.) in Mexico: Description of the variety, its cultivation, and uses.International Journal of agronomy 2017.

Vishwas Sudhir Chitale, Mukund Dev Behara, Partha Sarthi Roy (2014) Future of Endemic flora of Biodiversity hotspots in India. https://pubmed.ncbi.nlm.nih.gov/25501852

VM Jadhav, RM Thorat, VJ Kadam, NS Sathe. Traditional medicinal uses of Hibiscus rosa-sinensis. J Pharm Res 2 (8), 1220-1222, 2009

Wasana Pratchayasakul, Anchalee Pongchaidecha, Nipon Chattipakorn, Siriporn Chattipakorn. Ethnobotany & ethnopharmacology of Tabernaemontana divaricate. Indian Journal of Medical Research 127 (4), 317-335, 2008

XB Liu, BX Yang, L Zhang, YZ Lu, MH Gong, JK Tian. 2015. An in vivo and in vitro assessment of the anti-inflammatory, antinociceptive, and immunomodulatory activities of Clematis terniflora DC. Extract, participation of aurantiamide …Journal of ethnopharmacology 169, 287-294

Xiao Men, Sun-Il Choi, Xionggao Han, Hee-Yeon Kwon, Gill-Woong Jang, Ye-Eun Choi, Sung-Min Park, Ok-Hwan Lee. Food Science and Biotechnology 30, 171-183, 2021. Physicochemical, nutritional and functional properties of Cucurbita moschata

XinXin Zhang, Mei Liu, XinYu Cheng, ChuanQi Shi, Jian Ru, Yan Sun. Comparative study of the morphological and anatomical features of Lindernia procumbens in different ecological environments (Linderniaceae). Acta Prataculturae Sinica 23 (2), 235-242, 2014

Xirui He, Xiaoxiao Wang, Jiacheng Fang, Zefeng Zhao, Linhong Huang, Hao Guo, Xiaohui Zheng. 2017. Bletilla striata: Medicinal uses, phytochemistry and pharmacological activities. Journal of Ethnopharmacology 195, 20-38

Yan Wang, Farooq-Ahmad Khan, Mahwish Siddiqui, Muhammad Aamer, Cong Lu, M Iqbal Choudhary. The genus Schefflera: A review of traditional uses, phytochemistry and pharmacology. Journal of ethnopharmacology 279, 113675, 2021

Yi-Zhong Cai;Jie Xing'Mei Sun'Zhao-Qi Zhan. Detecting Deterioration In Royal Palm (Roystonea Regia) Using Ultrasonic Tomographic And Resistance Microdrilling Techniques. 1996

Yun Qiao, Wei-Wei Sun,Jian-Feng Wang &Ji-Dong Zhang. Flavonoids from Podocarpus macrophyllus and their cardioprotective activities. 2013.